An Address
ON
SOME POINTS WITH REFERENCE TO THE DIAGNOSIS AND TREATMENT OF TYPHOID FEVER.

Delivered at the opening meeting of the West London Medico-Chirurgical Society on Oct. 6th, 1893,

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GENTLEMEN,—Those of you who may be familiar with the writings of Professor Huxley will remember that he commences one of those charming addresses for which he is so justly famed by calling attention to the beneficial results which follow a usual custom of trade: "Merchants occasionally go through a wholesome though troublesome and not always satisfactory process which they term 'taking stock.' After all the excitement of speculation, the pleasure of gain, and the pain of loss the trader makes up his mind to face facts and to learn the exact quantity and quality of his solid and reliable possessions." These are the words in which the learned professor suggests that, as men of science, we should at times investigate our own position with regard to our stock of knowledge. In thinking over the subject for my address to you this evening, and endeavouring to provide material in which I might hope somewhat to interest you, my mind reverted to the above passage, and I determined to beg your permission for laying before you some thoughts engendered by a review of my own personal experience in connexion with typhoid fever. Speaking as a physician, it is doubtless more difficult to compare case with case, patient with patient, treatment with treatment, result with result, than occurs with the material that a surgeon has to deal with. His practice is essentially more objective, and consequently more easily demonstrated, more easily made the subject of statistical methods of inquiry. Hence I do not propose to trouble you with any detailed analysis of those cases of fever which have happened to fall under my own personal supervision; I intend rather to bring before you some of the chief points which to me, at least, appear of special interest. I would here preface any remarks I may make by an apology, not for the subject I have chosen, which is one of weighty interest and worthy of the highest intellectual capacity, but for its treatment, which from the very nature of my discourse must appear egotistic and personal, a somewhat necessary corollary to a review of one's own experience and practice. The subject-matter of my address is derived from the attentive consideration of some 116 cases of fever which have been entirely under my care. They come from three sources—namely, patients admitted under my care at the West London Hospital, patients similarly placed at the North-West London Hospital, and those occurring in my private practice. The cases are, to the best of my knowledge, consecutive, and have been those treated by me during the past ten years. Fifty of them are from the West London Hospital, with seven deaths; fifty-three from the North-West London Hospital, with four deaths; and thirteen private cases, without a death. In reviewing my own personal experience as to the management and successful treatment of typhoid fever, there arose one point which appears of such eminent importance as to dwarf all others into comparative insignificance. I allude to what may appear a truism—namely, the diagnosis of the disease; and by diagnosis I wish you to understand that I use the word with its broadest meaning, and not, as is usually the case, by limiting its use to differentiating between those diseases with which fever is liable to be confounded or mistaken. The annals of medicine are full of such ambiguous, doubtful cases; we shall be able to supply them from our own daily practice. Our minds will revert to our student days when, preparing to meet our respective examiners, we were ready primed to write down in parallel columns the distinctions—the diagnostic peculiarities—which might satisfy the most severe, but yet are so sadly wanting at the bedside of our first patient, in whom we may be called upon to solve the problem of his illness. Acute tuberculosis, meningitis, ulcerative endocarditis, ague, pyæmia, and the like, are easily described, and easily differentiated when treated on paper. How strikingly different is the case in practice. I have myself been present day after day at the bedside clinical lectures given by one of our most distinguished physicians at one of our largest metropolitan schools, the subject being typhoid fever, the patients presenting one by one all the recognised pathognomonic symptoms of that affection: a typical temperature, distended abdomen, a few scattered rose spots, diarrhœa, and slight delirium; finally, a tympanitic, swollen abdomen, and death, assumed to be the result of a perforation. Well do I remember the expression of the professor following his patient to the post-mortem table for the purpose of demonstrating to his class the morbid anatomy of the fever, when he found no such pathology as he anticipated, but a carious vertebra, with a perforation of the abscess, giving rise to those symptoms which in turn had been considered as undoubtedly due to an enteric seizure. Indeed, if we are true to ourselves, to our own knowledge of disease, we must acknowledge that under occasional and not altogether infrequent conditions an absolute diagnosis between fever and other affections is impossible. Leaving such matters of generally acknowledged difficulty with regard to the diagnosis of fever, I will pass on to the class of case to which I would specially invite your attention this evening. I believe, if we conscientiously examine our own ideas as to the onset of fever, we shall find that we are all apt to overrate the ease with which the diagnosis can be made. My remarks here refer absolutely to the milder forms of fever, cases which lack most, if not all, the important pathognomonic symptoms which, in an ordinary attack, give us the opportunity of making an accurate statement as to the true cause of illness within but a few hours of careful watching. Ever and anon we are impressed by one of those cases, proving rapidly fatal from a perforating typhous ulcer, which, upon reference to the clinical history, is seen to have been without premonitory symptoms—cases described in our text-books under the name "ambulatory typhoid," and, as Dr. Fagge remarks, "a but clumsy designation for this particular class of case." This is the sort of case to which too much importance is attached. It would be far better to grasp the evidence produced by those unfortunate individuals who by some peculiar personal characteristic are enabled to bear—aye, and without apparently much discomfort—the pathological sequences of a specific attack of enteric fever. It would be far better to look upon such cases as striking proof of the presence of mild, badly marked instances of fever, and to see that it is these cases which it should be our earnest, constant endeavour to recognise before the pathological changes arise which quickly bring a simple undeveloped state of supposed indisposition to one of absolute hopelessness as regards recovery. From my own experience I consider these subacute attacks of fever to be very far from rare; and I believe we have legitimate clinical grounds for placing such cases in two classes. The one would comprise those patients who are the subjects of a fever which runs throughout a course of extreme mildness, but which is, of course, accompanied with the specific bowel affection of the disease, and therefore exposed to all the local dangers incident to the disease, the chief of which are perforation and hæmorrhage. In another class I would place those patients in whom the attack is followed by an outbreak of more pronounced type, maybe with all the well-known symptoms of typhoid fever present in high relief. You will at once perceive how artificial is such a classification, and it is only proposed for the purpose of bringing the primary stage more directly before you. Naturally the one class will be found frequently associated with the second; they prominently represent the difficulties incident to ill-developed typhoid fever from the standpoint of diagnosis; in other words, they are suffering from a secondary seizure or relapse, and it frequently happens that it is for this secondary attack or relapse that the patient seeks advice. If we turn to the hospital records it is surprising how many fall under this category: patients who have been more or less ailing for some weeks, in many instances following their avocations up to the day of admission. I need hardly add that such contribute materially towards swelling our mortality tables. The bowel lesion may be looked upon as a faithful index as to the stage of fever through which the patient is passing, and it is from pathological evidence alone that I feel justified in making the classification I have just referred to.

To these cases of latent, subacute, or ill-defined fever my attention was first directed by a patient who died under the care of the late Sir William Gull. The post-mortem examination was made by me in November, 1879, the case being described in the Guy's Hospital Reports, vol. xlii., where will be found a capital illustration showing the diseased state of the ileum. The description of the specimen is from the pen of Dr. Goodhart, who states that the lower portion of the ileum was extensively diseased, showing several stages, which he divided into the following groups: (1) ulcers with their sloughs separated and with distinct cicatrisation of the edges; (2) ulcers with sloughs separated, but with no evidence of healing; (3) ulcers with sloughs separating; (4) solitary follicles and agminate glands swollen and beginning to ulcerate in their centre; and (5) swollen follicles and glands without any attempt at ulceration. In the paper describing this instructive case the pathology alone is discussed; the clinical history, with its all-important lessons, is not touched upon. There were obvious reasons why the history of the patient could not be dealt with fully at that period, but now, after the long lapse of time, I have no hesitation in referring to it from my notes made on the occasion of my performing the post-mortem examination. The patient was a gentleman thirty-seven years of age. On or about Sept. 14th, 1879, he became indisposed from headache, accompanied with diarrhœa and some slight rise of temperature. Within a fortnight he was considered well, and was sent to a seaside resort. Returning home on Oct. 9th, he was again seized with illness, headache being now the principal symptom. On Nov. 3rd he had recovered and again sought change of air in the country. Four days later the symptoms returned, the bowels being obstinately confined—in fact, this symptom was considered as the true cause of illness, and strong turpentine enemata had been administered to try to overcome the constipation. A few days later in the month the symptoms, including pyrexia, vastly increased in severity, and Sir William Gull saw the patient, who succumbed within a few hours from hæmorrhage. When examining the bowel, with its tremendous array of ulcerating tissue, it seemed almost impossible to believe that the clinical course of the attack could have in any degree simulated the account I have briefly referred to; the diseased bowel spoke clearly as to there having been at least three stages or attacks of fever, these stages probably agreeing with the incidence of each respective attack of symptoms. This portion of intestine showed with fatal distinctness how strangely masked a true definite seizure of fever can be: moreover, that an extreme degree of ulceration need not necessarily be accompanied with any diarrhœa, but that the reverse may be the case, and that constipation may become a symptom denoting ulceration extending over a large area of intestine. Certainly my own clinical experience tends most decidedly to confirm this truth. I believe diarrhœa does not by any means warrant us in considering the ulcerative process as being of an extreme nature.

A very similar case to the above came under my notice within the last twelve months. I was asked by Mr. Christopherson, of Hastings, to see a patient with him, whom he considered to be suffering from an attack of typhoid fever with rapid accession of grave symptoms. Here the history was practically the same as in the last case. A gentleman was out of health for some weeks, during which time he had been travelling on the Continent; he was sent to the seaside for change and within a few hours of his arrival at Hastings he developed symptoms of great intensity, which were at once recognised by Mr. Christopherson as probably due to typhoid fever, although this patient had only been severely ill for a few days, his symptoms were those of an enteric attack of about three weeks' duration. When the previous history was carefully sifted we found that the clinical conditions completely squared with such an assumption, but that with regard to the initial period the attack had been strangely wanting in the usual symptoms of typhoid fever, the state of ill-health being little more than general indisposition. I cannot but believe that there is much misconception as to the course of the fever process. There are, at the present day, but very few physicians who doubt that the cause for fever is to be found in the lower organic world; probably all of us here this evening agree that the poison of typhoid fever is a living organism. We are doubtless ignorant as to the definite, exact steps followed during its life-history when affecting its living host; from all analogy we are right in assuming that, whatever processes its development passes through, such developmental stages are invariably accompanied by corresponding pathological changes in the tissues of the affected individual.

The pathological anatomy of the typhous process is usually accepted as taught by Liebermeister. You will remember that, according to that renowned teacher, the first week of the disease is occupied by the swelling and infiltration of Peyer's patches. During the second week they slough or begin to subside. In the third week any sloughs that may have been formed become detached, so that, by the end of this period, all the ulcers have clean floors. During the fourth week they begin to heal. As Dr. Fagge remarks—from whose work I quote—"this statement of Liebermeister is easy to remember, but it is certainly not universally applicable in such a way that a pathologist should be able, from the appearance after death in a given case, to state positively the duration of the patient's illness." In other words, according to some authorities, the pathological appearances after death do not inevitably tally with the clinical history of the patient. Personally, in all such cases—that is, in all cases where the clinical history of the infected individual does not agree with the pathological changes of tissue—I should feel inclined to look upon the clinical history and not the pathology as being at fault, the poison affecting individuals with different degrees of force. When, therefore, we find a diseased state of ileum with ulceration or deposits specific to the typhous process, but where the clinical history does not tally with the morbid anatomy, we are not right in regarding such a condition as one of rapid pathological development, but rather as a modification and amelioration of the normal symptomatology of the disease And these cases lie on the extreme margin of that chain of evidence which links case with case and supplies us with proof that all pathological changes are not necessarily accompanied by the same constitutional disturbance and that a mild clinical course is not free from all the dangers attending severely marked pathological processes.

In proof of the insidious, anomalous onset of some cases of enteric fever, the following account of a patient under my own care affords a striking and apt illustration.

CASE 1.—A patient fifty-six years of age, of good general health, consulted me on the evening of Jan. 3rd. He brought from his country adviser a letter stating that the symptoms of illness were slight: loss of appetite, insomnia, and an unusual lassitude. There was a question as to the state of the urine, which had been noted as being albuminous on more than one occasion. The indisposition was considered as being due to this cause, aggravated by stress of work and worry, the official duties of the patient being of the most onerous and, at the same time, highest order. At that time and for the preceding few weeks they had been especially trying and complex. The patient's own complaint at this period was simply: "I feel wretchedly ill and unfit for work, and have been for nearly a month." The tongue was fairly clean; the pulse was 82; the bowels were regularly opened; the appetite was poor, and sleeplessness was a great trouble; there was no headache. The temperature had not been taken; there had been no symptoms whatever pointing to the presence of pyrexia. When I took the temperature it was 102° F. On the following morning decided improvement was felt; the temperature was 99°, the pulse being 72. In the meantime I had had an opportunity of examining the urine. I could find no trace of albumen, but on adding nitric acid there appeared a hazy ring of deposit—nitrate of urea. On the evening of this day the temperature had again risen to 102°, dropping next morning to 100°; there was now profuse diaphoresis, the evening temperature being 102·5°. The diagnosis was still most obscure; for several reasons which I need not here particularise "influenza" was unlikely to be the malady. A careful review of the previous few weeks showed that the patient had been in his usual good health up to about the middle of December, since which time he had been observed by several friends to be looking very ill, and owned himself to be feeling so. Putting all the facts and details of the history together, my conclusion was that the illness was the termination of a mild, ill-expressed attack of typhoid fever, and I treated the patient as suffering from that affection. I have stated that on the third evening of my seeing the case the temperature had risen to 102·5°. On the morning following it was subnormal. During the five succeeding days there was a slight evening rise of temperature, the morning temperature being 99° or normal. The general state of the patient showed improvement. The pulse was about 60, and the tongue fairly clean. I have so often been impressed by the latency of many cases of fever that, although I could but feel that many might call in question the accuracy of my diagnosis,

I had not in any way relaxed the stringency of treatment adopted from the first, the ordinary treatment for fever having been most strictly followed. On Jan. 12th the morning temperature was 98°, and for the eight following days the morning and evening temperatures remained normal. All the other symptoms had disappeared. The patient slept well; the appetite was restored, the only complaint being as to the restriction in diet; no solids had been allowed. On the afternoon of the eighth day of the temperature being normal night and morning, the patient sat up for three hours on a sofa. On the evening of that day the temperature rose to 100·4°, falling to 100° the next morning, but rising at night to a higher degree than had as yet been recorded. From this date the illness assumed in every characteristic the type of a severe attack of typhoid fever. There was no complication, and a perfect and complete recovery took place.

This case places before us with great distinctness one of the peculiar phases of typhoid fever, and demonstrates the extraordinary latency of some attacks which are followed by a development of fever of normal type. Reflection upon the first case I alluded to—the one reported in the Guy's Hospital Reports—comparing its pathology with the clinical features of that just described, will help us in estimating the danger of failing to recognise the milder types of fever. In the first case we have evidence of markedly severe pathological changes producing but mild and anomalous clinical symptoms, the specific nature of the illness being unrecognised and allowed to drift on, and as each stage was reached the symptoms increased in gravity, the successive attacks of illness without doubt corresponding with parallel pathological conditions readily demonstrable in the ileum. The one case supports and supplements the other and supplies links in the chain of evidence, which are faulty as regards one case examined alone.

CASE 2.—Many cases of latent typhoid fever which have subsequently developed into a typical seizure have come prominently under my notice; but time does not permit me to refer to them individually or in great detail. This case, one of much interest, occurred in the person of a youth who was admitted into the West London Hospital under my care in October, 1892, for supposed rheumatism. The boy had complained of painful joints, and there was a soft mitral bruit. The attack had lasted for eight days before admission to hospital. From the history and clinical state of the patient subsequent to admission I could not satisfy myself that the illness was rheumatism. For twelve days the temperature showed slight morning and evening fluctuations; there was no rash, but the tongue was coated, and the abdomen was unduly swollen; the bowels were opened daily. On the thirteenth morning after admission the temperature was subnormal and remained at or about normal for another ten days, when an evening rise of temperature to 103° F. was noted. Upon this day a typical attack followed with copious eruption of rose spots. The first illness was clearly proved as being an indefinite mild attack, followed by a relapse, or, as I should prefer to say, a secondary seizure of pronounced severity.

The cases I have alluded to illustrate the fact that a primary attack of fever may be anomalous, indefinite, and altogether wanting in that array of clinical symptoms so well known and recognised as belonging to typhoid fever. They prove beyond cavil that such an anomalous attack may be followed by a true, typical seizure of fever; though that many cases occur where the fever is of the mildest type and is not followed by any relapse or secondary attack I cannot doubt. Possibly the work done in our scientific laboratories may, at some future period, supply a clue towards elucidating some of the complex problems in bacteriology. We shall hope and expect that they will supply us with knowledge relating to the different types of our common infectious diseases. Is such difference in type due alone to differences of soil upon which the infecting organism may chance to fall, or does the infecting organism itself undergo changes as regards its specific virulence? We may hope for answers to all such questions in the fulness of time. With regard to severe types of fever following upon mild and ill-expressed ones, we are in possession of facts which tend to show that, under certain conditions, the virulence of the bacteria of typhoid fever can be largely increased by passing them through the bodies of animals that at first offered great resistance to their pathological action.[1] It is possible to base a hypothesis upon laboratory experiments that under some unknown conditions the specificity of contagium, as evidenced by more pronounced symptomatology, is promoted by a previous infection. To speak more clearly, a severe, well-marked attack of fever will be found to follow one which has been wanting in most, if not all, of those special symptoms which we are accustomed to regard as being pathognomonic, the primary infection apparently increasing the virulence of the poison. One symptom of fatal significance frequently ushers in the last stage of these mildest attacks; a sudden peritonitis, rapidly followed by exhaustion and death, is well known. In some few of these cases it is even difficult to discover any previous symptom of illness, and from such instances we are enabled to affirm that a patient may suffer from intense local lesion producing ulceration of the intestinal wall, and moreover a lesion produced by a specific poison, and yet exhibit none of those usual phenomena of illness which we are accustomed to look upon as denoting the effect upon the economy of that specific poison. The following case fully illustrates this:—

CASE 3.—Some years ago a young woman, a domestic servant, was sent to the West London Hospital under my care by Mr. Rickard Lloyd. The patient was suffering severely from a sudden seizure of abdominal pain which had been correctly diagnosed as due to peritonitis. From the symptoms and general condition of the patient it was impossible to speak with absolute precision as to the exact cause of the inflammation. A perforating gastric ulcer, the usual cause for the symptoms she presented, appeared to be contraindicated, and the diagnosis—or guess—lay between some uterine trouble and an enteric attack. With regard to the latter disease there appeared to be lacking every vestige of symptom. The girl had been employed in her usual duties as parlourmaid up to the moment of attack. She habitually suffered from constipation and was accustomed to take a large number of pills, and the symptoms of the initial seizure were considered as referable to this habit. On the evening of March 6th, 1888, she had waited at dinner; a short time afterwards she suffered from violent abdominal pain, vomited, and went to bed, but made no complaint. Mr. Lloyd did not see her till the following evening. I made special inquiries where she was in service, in order to obtain authentic information as to her health before admission to hospital, and I think the facts obtained by me showed conclusively that practically there were no symptoms of any consequence. She happened to be a maid much appreciated by her employers. They had had no idea that the young woman was not in her ordinary health up to the time she was seized with "colic." And yet what was the reverse of the shield? The intestines showed with terrible conclusiveness that for at least three weeks the patient had been passing through the stages of typhoid fever, the lower portion of the ileum being extensively diseased. "There were here ten deep purple-coloured swollen ulcerated patches, one of which had perforated."

Such a case as this is important, not only from its own peculiar interest, from its own special intrinsic value, but rather from the fact that it brings before us the appalling danger of overlooking the milder cases of fever. The danger of these attacks practically hinges upon the fatal complication.

The following case will be found to furnish very similar features.

CASE 4.—A general servant applied for relief at the West London Hospital on April 27th, 1886. She had walked to the hospital and stated that she was suffering from severe pain over the abdomen, which was found to be distended and painful. She was a fair, delicate-looking girl, nineteen years of age, and had been engaged in her ordinary duties up to the time of admission. She owned to having felt unwell during the past three weeks, but at no time had this indisposition prevented her from attending to work. During the two or three days previous to her admission she had suffered from abdominal pain, and within the past twenty-four hours the abdomen had become distended. For this symptom she applied for advice; her bowels had been confined. On admission her pulse was 96, the temperature was 101·4° F., and the respiration was 24. The patient was deaf, listless, and lay on her back with the legs drawn up, the physical symptoms being those of acute peritonitis. The following day the symptoms had increased in severity, the evidences of peritonitis were more marked, and the constitutional disturbance was more severe. On this day the bowels acted, the stools being formed and of ordinary character. Remaining in much the same condition during the next ten days, improvement gradually took place; the peritonitic symptoms decreased in severity, the temperature and the pulse fell, and the patient was bright in manner, asked for food

[1] Professor Franklin's address before the British Association, 1893.

and books, turned easily from side to side and appeared better in every way. Matters remained thus from May 13th to June 7th; the bowels acted naturally; there was little or no pain over the abdomen, but this part was still unduly distended. On the evening of this day (June 7th) the temperature rose to 104°; the girl vomited, and complained of severe pain in the lower iliac region; the pain and vomiting continued for six days, and the patient died from exhaustion on the forty-seventh day after admission into hospital, and, as nearly as could be judged from the history of her illness, about the seventieth day from its commencement. The post-mortem examination clearly showed the attack to be one of peritonitis due to a perforation accompanying typhoid fever, the perforation being adjacent to one of Peyer's patches, which was ulcerated. In the lower portion of the ileum three of Peyer's patches showed distinct signs of old ulcerative processes, all being indurated, and one was distinctly cicatrised. The case is reported with greater detail in THE LANCET of Aug. 7th, 1886.

Dr. Murchison, in his work on "Continued Fevers," calls attention to the frequency with which these mild attacks are complicated with perforation. He writes: "It is a fact, which cannot be too strongly insisted upon, that perforation may occur in cases of the mildest description and in which the bowels have been throughout confined." Again he states: "In nine of my sixty-nine cases of perforation there had been constipation up to the occurrence of perforation, and in five of the nine cases the general symptoms had been very mild. I have known a man walk more than a mile to the London Fever Hospital at the end of the third week of the fever, and die of perforation within thirty hours of admission. Another of my patients was seized with perforation while digging. ..... Most writers agree in stating that perforation is chiefly met with in these latent cases."

We are so accustomed to meet with typhoid fever with its wonted severity that, unless we have personally met with cases of the mildest type, it is difficult to realise, when we happen to see a case, that fever is truly the cause for the slight indefinite symptoms of which complaint is made.

CASE 5.—On June 15th, 1890, I was consulted regarding a lad who had been indisposed at school and had been brought to London for advice. The symptoms were those of but slight indisposition, with confined bowels. At the time of my first seeing the patient the temperature was raised, being just above 100° F. The history dated back to the 24th of the preceding month, being about three weeks. As far as I could judge, on that day the boy appeared well; a few days later he had been visited by friends and taken to lunch at a pastrycook's, and on June 1st complaint of illness was first made, the symptoms being headache and feverishness. From that day till my interview, in all being fifteen days, whenever the temperature had been taken it was found to be raised, varying between 99° and 102°. From the first day that the boy came under my care till the termination of the illness there was an invariable evening rise of temperature and frequently a morning rise also; the bowels were confined, necessitating enemata; the tongue was slightly coated and the abdomen was more distended than is normally the case. I wrote to the medical man who attended the school whence my patient came, stating that although the attack was slight and indefinite I considered there was little doubt but that typhoid fever was the cause. In answer to my letter I received a most courteous reply, but, at the same time, my correspondent did not agree with my diagnosis, giving his reasons for not doing so as follows: that typhoid fever "was contra-indicated by reason of the sudden onset" and by "the continuous improvement from the commencement of the severe symptoms and the apparent definite cause—i.e., a surfeit of rich food"; and, lastly, by the "utter absence of any similar case at the school." However, he added, "it is a very reasonable suggestion, and one that will make me keep my eyes extra widely open. The abortions of typhoid fever are most interesting to watch and certainly very little understood, and it is only by getting such a letter as yours that one gets a chance of really following up possible clues."

I give these quotations in no carping spirit, but simply because they refer to what is practically—at least so far as my own personal judgment leads me to give an opinion—a fallacy. Now, with regard to the manner in which the onset of fever can assist us in making an accurate diagnosis, doubtless in by far the largest proportion of cases the onset is more or less prolonged, but a rapid, sudden accession of symptoms is far from uncommon. We may see it as a maniacal outburst, as an acute catarrh, as a pharyngeal attack closely mimicking diphtheria, and as a lung seizure as closely simulating pneumonia. I remember, in one case coming under my care in hospital, a schoolboy aged eleven was seized at school with severe vomiting and diarrhœa, for which, unfortunately, "fuel was added to the fire." Large doses of salts and senna contributed to the fatal issue of an attack perfectly sudden as regards its initial symptoms, but none the less truly initiated by typhoid poison, as was shown by the extremely diseased ileum. Again, with regard to another fallacy especially prevalent when diseases of children are under notice, I doubt very much whether a surfeit of the richest food will cause continued pyrexia in child or adult. Gastric disturbances with children, and especially with children of certain families, will readily cause a sudden and violent pyrexia, with a temperature rising to 104° or 105°, but with such children a few days' treatment soon puts an end to a storm which looked formidable at the onset. Much more suspicious are those cases—I allude to children only—where the temperature is not so high, but where the fever ebbs and flows day after day, maybe week after week, and where, after excluding all other possible causes, the specific poison of typhoid fever is found to be the exciting influence. So closely do these cases simulate meningitic trouble that for the first few days of illness we have no means of differentiating between the two illnesses. I have met, as probably most of you present have also, with cases of tuberculous meningitis which, in all particulars, have closely resembled the ordinary symptoms of typhoid fever; while, on the other hand, as often—or far more often—we meet with patients whose attacks resemble meningitis, but are eventually found to be fever, under which class most of the cases of "cured" meningitis will be found to fall. The following record alludes to a case in which the diagnosis was of the greatest difficulty.

CASE 6.—A schoolboy fourteen years of age was admitted under my care in the North-West London Hospital on Dec. 9th, 1889. The lad had been ailing for more than a week, but had continued at work; there was a strong phthisical history in the family. There was no rash, diarrhœa, or abdominal disturbance; the temperature was high (103° to 105° F.). On the second day after admission he passed a natural formed motion. The symptoms were entirely referable to the chest, fine crepitation being heard all over the lungs. The respiration was 44; the temperature was 105°, but this was reduced by sponging to 102°. On the tenth day after admission he died suddenly. The post-mortem examination proved that the boy must have been in at least the third week of an attack of typhoid fever—probably the duration had been longer. Peyer's patches were ulcerated; the sloughs had separated and showed no trace of healing. Two patches were the seat of the perforation.

With children—as indeed with adults—a continued fever, accompanied with indefinite symptoms of pneumonia or rheumatism, should invariably put us on our guard against the insidious onset of typhoid fever. I am surprised, in looking through my hospital cases, to note the large number of patients who, through complaining of aching back and joints, have been considered, by reason of these most ordinary symptoms of all known varieties of pyrexia, to be suffering from acute rheumatism. In others rapid respiration, some cough, and a raised temperature have at first attracted attention to the pulmonary area, and day by day the lungs have been carefully examined with confident expectation that a pneumonic patch would clear up the doubtful diagnosis. In these cases frequently, as the chest symptoms subside those of typhoid fever become accentuated, but the brunt of the primary attack is apparently centred on the lung. In discussing some of the difficulties underlying the diagnosis of typhoid fever I have confined my remarks principally to those cases in which the primary attack has been accompanied by an unusual paucity of symptoms—cases in which the fever has run a course unaccompanied by symptoms denoting the extreme gravity of the illness from which the patient is truly suffering. From my own experience many of such patients first come under our notice when suffering from what we should usually term a "relapse." I think a more scientific expression would be "secondary attack," the primary one having been wanting in definition and ordinary symptoms. I believe these cases to be of great danger; the mortality is large, and it is of the greatest consequence that every means in our power should be adopted to establish a correct diagnosis at as early a stage as possible. Many of our hospital cases do not apply for advice in the primary

stage, but in private practice we often have the opportunity of placing our patient under treatment at an early period of illness.

It remains now to ask: what symptoms are there in any of these ambiguous anomalous conditions which should put us especially on our guard against typhoid fever? As far as my own experience leads me to express an opinion, I should affirm that there is but one symptom invariably present which can be accepted as an unfailing guide. Of course you are all well aware that I here refer to the symptom of pyrexia. And it is only by conscientiously seeking for the help of this symptom that we can hope to ascertain the true cause of what apparently is but a very slight indisposition. For the moment it will be well to put aside our ideas with regard to a typical typhoid fever chart.

Gentlemen, there is no such thing as a typical range of temperature when we apply the test to an individual case. But in all, excepting those of extreme rarity—namely, those of an apyretic type, of which our literature supplies a few of undoubted nature—there is a continued fever, maybe a temperature of 99° or normal in the morning, and only rising slightly towards the evening. Granting that our examination fails to find any other sufficient cause for constant pyrexia, I believe that in far the largest proportion we are right in regarding such a condition as caused by the poison of typhoid fever. And there are very few patients, should our diagnosis be incorrect, who from over-vigilance will suffer more than temporary discomfort. On the other hand, overlook the slight rise of temperature, treat the indisposition as due to overloaded bowels, to functional trouble of the liver, to headache, worry, and the like, and the danger becomes very great, and there is every chance of having a pathological investigation at some later date which, under other circumstances, possibly might have been avoided. Another trivial symptom of great value to me personally is the state of the abdomen. In every suspicious case—that is, where fever of but slight amount has continued for longer than three or four days—a full, careful examination of the abdomen in a good direct light should be insisted upon. Such examination will frequently be found to supplement our knowledge. Dr. Fagge speaks of the abdomen being distended during the second week, but at an earlier date it more often than not presents signs of being out of order and is slightly swollen. Gurgling in the iliac fossa is a symptom, to my mind, absolutely without any point of significance; moreover, under no circumstances would I permit the symptom to be sought for in any patient under my own care. Again, in these mild cases the state of the bowels is of little help. I should myself say that constipation is more frequently present than diarrhœa and is a symptom often leading to erroneous diagnosis. The difficulties of diagnosis have been a thousandfold increased during the past three or four years by the prevalence of epidemic influenza. In many instances it has been impossible within a week or more to decide as to the nature of the disease. At the beginning of this year two nurses were taken ill on the same day at the North-West London Hospital; they were admitted at the same hour; both complained of identically the same symptoms—headache and aching pains in the back and limbs; their temperatures were alike, ranging from 102° to 103° F. Each had the symptoms which we are accustomed to look upon as evidence of influenza. The attack in each case was a prolonged one, and my suspicions were roused as to the nature of the illness. On the seventh or eighth day one patient had lost her fever and was practically well; the other case continuing, proved to be a typical one of fever; but during the first seven days of illness there was not one single symptom which differentiated the case of the patient suffering from typhoid fever from that of her companion who was passing through a prolonged and severe attack of influenza.

It remains for me now to say a very few words with regard to treatment, and to speak with greater exactness of the management of typhoid fever. Broadly, we are probably all in accord upon the general principles which actuate us in the care of these cases. With some of the details of treatment there is a diversity of opinion, and it is only upon such moot questions that I intend offering any remarks. Practically, we meet with extreme views both as regards the treatment of the symptom of pyrexia and the troubles incident to the bowel disturbance, this bowel symptom being almost invariably constipation. The question arises whether we are to give aperient remedies or not. We also meet with different views with regard to the administration of alcohol. At the present time we are passing through a stage in the history of practical medicine in which the treatment of pyrexia assumes large proportions. Daily we have antipyretics placed in our hands, and it is the fashion of the day to make great use of them. Those who have watched the epidemic of influenza, with its one highly-marked symptom—pyrexia—must have noticed the ill-effect of some of our directly antipyretic remedies, and I think this disease will be found to prove an apt illustration of the fact that pyrexia *per se* need not necessarily be looked upon as a serious omen. With regard to the treatment of typhoid fever I have never considered it necessary, in any single case under my own care, to do more than use simple means to control the temperature. In examining the temperature charts of the cases I find the pyrexia in many to have been severe—over and over again the record is 103° to 104°,—but I may conscientiously say that I never saw harm ensue. The mortality of these cases is, as far as one can argue by comparison, very low; of the 116 patients I find that only eleven died (you are aware that the mortality as given by our chief authority, Dr. Murchison, is much higher than this—in fact, it is very nearly double that shown by my own cases). I have carefully examined into the cause of death among the fatal cases, and I think I may fairly conclude that a high temperature neither directly nor indirectly contributed to the fatal result; but, as far as my notes serve me, death resulted from the fact that the disease had not been recognised as of a serious nature before admission into hospital. Fifty-three patients were treated by me at the North-West London Hospital, of whom four died. Of these, one, a child who had been severely treated by means of drastic aperients, succumbed after a few days, the post-mortem examination showing a state of enteritis apart from the specific pathology of the case; another case was that of an intemperate potman, who had been considered to be suffering from acute delirium tremens and had been treated for that disease, the tremor being a pronounced symptom; the third case was that of a woman in the fourth month of pregnancy who aborted and died from peritonitis; and the fourth case was that of a child who, within a few days of admission, suffered from perforation, and who had evidently been the subject of fever for a fortnight or more before coming under treatment.

At the West London Hospital fifty cases, with seven deaths, have occurred under my care, and all these cases confirm the importance of an early diagnosis:—(1) In this case the patient was ill for three weeks before admission; (2) this patient had old cicatrised ulcers, the attack for which advice was sought being evidently a secondary one; (3) the patient had been ill for fourteen days; (4) this patient was admitted to hospital suffering from peritonitis; (5) this was a secondary case; pus was present in the abdomen; (6) the patient had a sloughing ulcer, although death occurred within ten days of admission; and (7) a male patient past fifty years of age. This was a very severe case. His son was also in the hospital at the same time suffering from a very severe attack, but recovered.

The great mortality of fever cases, I believe, largely hinges upon the date at which the patient comes under appropriate treatment. Of the above fatal cases, with only one exception did any patient apply for advice at the hospital until practically having passed half through the normal stage of the attack. I am satisfied that an ordinary well-marked attack of typhoid fever is invariably accompanied by a high range of temperature, while pyrexia in by far the largest majority does not require vigorous interference—by which I mean that it does not require constant doses of antipyretics, such as antipyrin or antifebrin or the use of the cold bath. Attention to the bed-clothes, repeated sponging—always grateful to the patient,—with possibly quinine—and, from my own experience, I would add the use of alcohol,—will be found sufficient to control the pyrexia in most patients. With patients passing through a very severe attack, who show a high-level range of temperature, there is probably some further cause for the high temperature, if not a definite complication. There will frequently be found a large area of ulceration, and the pyrexia may possibly be septic as well as specific. We note this high-level range of temperature in cases past middle life; it is invariably a symptom of evil omen. I say it is the fashion of the present hour to treat pyrexia alone as a symptom of the highest value, or rather as one denoting the greatest danger; but temperature as applied to the patient suffering from disease in many ways resembles heat as applied to inorganic bodies. We know of the specific heat of most matter. We should know of the specific heat of all diseases. We do know much with regard to the tidal range of the temperatures; do we know as much regarding their specific

range?—that state of temperature which may mean death or alarming symptoms in one disease or a mere ephemeral, passing phenomenon in another. For instance, there is no one here present who would not regard a high temperature in acute rheumatism as a most alarming symptom—a symptom to be attended to without the delay of a moment. A patient whose temperature was 105° while under the influence of acute rheumatism would be regarded with intense suspicion, and steps would be promptly taken, whether by bath or the direct application of ice, to check any increase of fever. On the other hand, let me take a fever of which probably none of us have had much experience, and therefore it affords a very fitting contrast with regard to the treatment of pyrexia prevalent at the hour. I allude to relapsing fever, of which we have at least an abundant literature and clinical details upon which we can place absolute confidence. Now, one of the peculiar symptoms of relapsing fever is the high—unusually high—temperature, a temperature which exceeds that of either typhus or most other fevers. On this point I will proceed to quote our best authority, Dr. Murchison. He writes as follows: "The temperature commences to rise before the initiatory rigor and before there is any rise of pulse, and within twelve or twenty-four hours reaches 104° to 106°. It usually reaches its acme (105° to 108·7°) shortly before the crisis, and occasionally at this stage it rises up rapidly several degrees in a few hours." Now come the important observations: "A circumstance of some importance in the pathology of pyrexia is the fact, conclusively established by many independent observers that the high temperature of relapsing fever entails little or no danger to the patient and does not produce serious cerebral symptoms." Dr. Murchison then quotes other opinions as to the absence of danger from the excessive pyrexia, and states that, with patients whose temperature ranged from 107° to 108°, in no single instance could any difference, beyond this one feature, be detected when comparing these cases with others in whom the temperature did not range so high. From the teaching of the hour it would seem impossible that such cases could exist without an appalling mortality due to the effect of the high temperature upon the body tissues. Nevertheless, you will find that the mortality of the disease is but slightly over 1 per cent. My own experience leads me to the belief that in a vast proportion of cases the pyrexia of typhoid fever does not require any urgent treatment. I have myself witnessed, in consultation, a patient enveloped, as to his abdomen, in a poultice of pounded ice. When seen by me he had been under treatment for several days and was moribund. As far as I could gather from the history of this patient there had been no symptoms denoting special gravity. The case appeared to be one of an ordinary nature. The effect of the constant application of the ice poultice was depressing in the extreme. It certainly had the effect of reducing the temperature for a short time, but its application had no permanent result beyond adding much to the discomfort and irritation of the unfortunate sufferer.

The clinical course of any ordinary uncomplicated attack of fever will invariably be accompanied by a temperature ranging for many days between 102° and 105°. Is there any ground, is there an iota of evidence, that by attempting to control by extreme measures what is a normal physiological process under fever influence, we benefit the patient? Personally I feel strongly that there is not. Typhoid fever is essentially a fever with marked remissions. With cases in which the temperature is taken constantly during the twenty-four hours it is often a matter of surprise to note the extent of these daily fluctuations. I have noticed that each individual has, so to speak, his zenith point at a different hour, usually between 4 P.M. and 9 P.M. With the temperature taken morning and evening the zenith point is frequently missed, and the actual range of temperature may be far higher than that recorded by the chart. I have a chart before me which shows this very clearly. The patient, a young man aged twenty-two, was suffering from a severe attack of fever. His medical adviser, visiting him in the afternoon, was alarmed at finding the temperature 105°. It had been 102° at 9 A.M. When I saw the patient the temperature was still 105°, but there was no other symptom denoting alarm. He was rather actively delirious and had had no sleep. The day was the sixth of the disease. After being sponged with tepid water and given two ounces of brandy, the temperature fell to 103°, and did not again rise to 105° during the course of the attack. If the chart had been consulted with reference only to the morning and evening temperatures this extreme point would have escaped notice. I do not think we always sufficiently recognise the importance of nerve repose in treating our fever patients. The nervous system is in a state of unstable equilibrium and is easily influenced by outward causes which in health would pass unnoticed. We all have had opportunity of noticing this with the pyrexia of a simple catarrh. How easily a night's rest is affected by very simple means! How a trifling mental difficulty becomes magnified when influenced by but a slight pyrexia! *A fortiori*, a patient suffering from continued fever requires our earnest solicitude in shielding him from all disturbing influences, and I am often surprised to find that patients passing through the milder forms of fever are permitted to transact business, to receive letters and telegrams, and otherwise have their readily excited nervous systems unduly disturbed by apparently the most trifling causes. The fever state is essentially one calling for the absence of all external irritants. It is essentially a state in which extreme rest and quietude are urgently needed. A darkened room, freedom from visits of kindly disposed friends, and the absence of all letters, papers, books, &c., are points which tend to help us in our treatment. Is it not true that frequently we find that patients who are delirious during the acme of their illness do better and are more amenable than those whose nervous systems are more keenly alive to any disturbing influences? In illness of most kinds, but perhaps especially so when the disease is accompanied by fever, there is an instinctive desire on the part of the sufferer for rest and quiet. In fact, our animal nature asserts itself, and, like the wounded stag which seeks the remote and lonely corrie therein to lay himself down and die, so our own prompting is for perfect repose. If this call for repose be interfered with we may frequently find undue excitement as the result. With this excitement there will invariably be a rise of temperature. It has been stated with reference to the treatment of typhoid fever that a dose of calomel at the commencement of the attack will cut short the fever. I believe this practice is followed by some physicians; others may give castor oil. Personally I have been most strongly impressed with the advisability—from my own experience I should add the importance—of refraining from any kind of aperient drug during the entire course of the fever. Some cases may be benefited by enemata, but I cannot say that those cases treated with constant injections—that is, when given every two or three days—have been any better than those in whom the bowels have been disregarded. I have never given a patient suffering from typhoid fever aperient medicine, and I have no cause for regretting my firmness on this point. I should add that among my cases constipation is as common as diarrhœa, and I can affirm with confidence that it has not been with the constipated cases that any abdominal inconvenience, such as pain or flatulent distension, has been complained of. Two years ago three patients came under my notice in the same house; all were suffering from fever—one being a servant who was removed to hospital, and the others two children, one of whom developed the attack away from London. All three cases were complicated with constipation, the child who remained in London very markedly so. She was treated *ab initio* without any aperient remedy, and there was no pain or inconvenience. There was no extreme distension of the abdomen. An enema was occasionally used at the termination of the attack. The child who developed fever away from London was treated from a different standpoint. Castor oil was freely given. The fever was severe, and there was great abdominal distension, almost amounting to tympanites. After the constipation was relieved by the aperient, diarrhœa became a troublesome complication, and the child was very ill. In consultation it was impossible to avoid making a mental comparison as to the two methods of treatment. You probably know the words of Sir William Jenner, who, in his well-known lecture on the treatment of fever, speaks of "that dose of medicine which irreparably injures the bowels." As I have stated in an earlier part of my address, a severe pathological lesion—in other words, a much ulcerated bowel—is not necessarily accompanied by extreme or even moderate diarrhœa—rather the reverse—and, as I have shown you, a patient with an intensely ulcerated bowel may have constipation as a prominent symptom. If I had the choice of one remedy only to assist me in the management of a case of typhoid fever I should without a moment's hesitation select alcohol. It is to me incomprehensible how any physician with a knowledge of clinical medicine can be found willing to undertake the responsibility of the management of fever cases

without the use of alcohol. I cannot believe that diffusible stimulants, such as ammonium carbonate or any preparation of ether, can therapeutically take the place of a well-matured spirit, whether given as alcohol or wine. In my own practice I have been accustomed to use alcoholic remedies with a free hand. Unless I am absolutely incompetent to form a correct judgment on such a matter, I feel convinced of their efficacy. I do not believe in routine administration; our hospital method is pernicious and undoubtedly leads to much abuse and waste. A physician visits his patients but twice a week and orders stimulants, orders them for the immediate occasion, and but rarely intends the remedy to be continued *de die in diem*, as we find is so usually the case. The administration of alcohol to some patients is one of the most important points in the entire treatment of the case; the dose may, and generally does, require constant alteration. A very severe case of fever under my care a few months ago was complicated with the most extreme irritability of tendons. I had never before seen such incessant and general muscular spasms. The note on the case taken by the medical attendant states: "Subsultus universal; almost every tendon jerking; well marked in erector spinæ." The patient was a woman past forty years of age, of very abstemious habits. During the stage of muscular spasm brandy was largely made use of—half an ounce every hour, with an occasional extra dose. The remedy acted like a charm, giving intervals of rest from this most distressing and painful complication. Although the amount of stimulant taken was very large, no untoward symptoms followed its free exhibition. Surely if the remedy had been harmful there would have been some symptom denoting its baneful action. The following is a striking instance of the beneficial result following a large dose of alcohol. A girl seventeen years of age, suffering from a rather severe attack of fever, in which the temperature ranged high on the afternoon of the twenty-first day of illness, became more feverish, the pyrexia being accompanied by delirium. I happened to be away from London, and the patient was seen in my absence by another physician, who found the temperature to be 105° F. He ordered a wet pack. When I saw the patient she had been in the pack twenty minutes, and the temperature in the axilla was 105·2°. The feet, hands, ears, and nose were cold to the touch; the pulse was almost imperceptible at the wrist. The patient during her rambling delirium complained of feeling "so cold." I gave an unmeasured quantity of brandy (presumably about four ounces), removed the pack, and placed hot-water bottles to the feet. Within a short time the temperature was lowered, the patient falling into a gentle sleep, from which she awoke free from delirium on the following morning, the temperature being 99°.

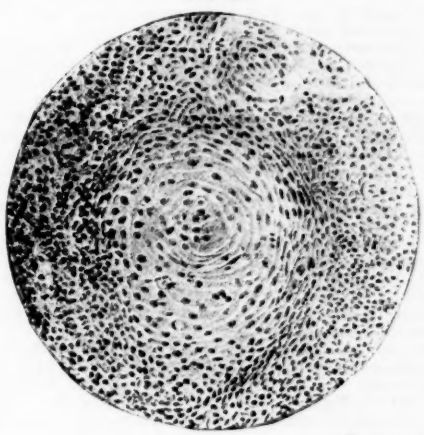
Having regard to the use of alcohol in the general treatment of disease, there is, as you are all probably well aware, what we may well call a gigantic experiment carried on in our midst. A hospital exists in London for the treatment of all classes of disease without the use of any form of alcoholic stimulant. Turning to the official record emanating from this institution, I find that during the years 1886, 1887, and 1888 there were 35 cases of enteric fever under treatment, with a mortality of 29 per cent., ten patients falling victims. During the years 1889, 1890, and 1891, 25 cases were received, with five deaths, or a mortality of 20 per cent. The London Temperance Hospital is within a short distance of the North-West London Hospital, to which I was attached as sole physician. During this period there were 39 patients under my treatment, four cases proving fatal; these fatal cases have been already referred to. Now, both hospitals serve the same district; the patients belong to the same class, and the comparison between the two death-rates is as fair and reasonable as any such comparison is possible to be. In the one institution alcohol was administered as required, often in large quantities; in the other no such remedy was made use of. With the data at my command I cannot but feel that with regard to the treatment of typhoid fever at the London Temperance Hospital patients do not receive that help which the experience of by far the largest majority of physicians would dictate as being essential for success. Since writing these lines Sir William Jenner's valuable lectures and addresses have been placed in the hands of the profession; and with regard to the use of alcohol in typhoid fever the opinion of that learned physician ranks as high as, if not higher than, any other that can be quoted. He writes: "I may sum up my experience in regard to the use of alcohol in the treatment of typhoid fever thus: its influence is exerted primarily on the nervous system, and through it on the several organs and processes—for example, the heart and general nutritive processes—changes on which the rise and fall of temperature depend. In judiciously selected cases it lowers temperature, increases the force, and diminishes the frequency of the heart-beats; it calms and soothes the patient, diminishes the tremor and quiets delirium, and induces sleep ..... it is in exceptional cases only that more than twelve ounces of brandy in the twenty-four hours can be taken without inducing some of the worst symptoms of prostration. Nearly all the good effects of alcohol where it is indicated are obtained by four, six, or eight ounces of brandy in twenty-four hours. ..... *Alcohol by the influence it exerts on the nervous system is of the greatest value in the treatment of typhoid fever.*" (The italics are mine.) Such, then, is the matured weighty opinion of the highest possible authority. And yet we have a hospital in our midst asserting that it possesses means and remedies which, if not superior, are equal in efficiency to the proscribed drug, alcohol. Doubtless the institution shelters itself under what may be called an urgency order—namely, that alcohol, if ordered by the medical officer, can be obtained for any patient on entering the particulars of the case in a book kept specially for that purpose. During the six years of which the official reports lie before me, and to which period I have already referred, in no single instance in connexion with the sixty patients under treatment for typhoid fever was a dose of alcohol considered beneficial.

RODENT CANCER AND ITS TREATMENT BY ELECTRICITY; WITH CASES.

BY J. INGLIS-PARSONS, M.D. DURH., M.R.C.P. LOND. &c.

THIS disease, better known as rodent ulcer, is one of the forms of malignant disease closely resembling epithelioma in its minute structure. A glance at Fig. 1, taken from Case 4, shows the typical bird's-nest cell almost characteristic of that disease. In other parts (Fig. 2), however, the resemblance is not so strong. The epithelial cells are very numerous, but they are not so large. In places they are imbedded in an almost structureless matrix and present somewhat the appearance of a round-celled sarcoma. Occasionally the cells are aggregated into columns and separated by a

FIG. 1.



delicate connective tissue. The stroma never presents the exuberant growth of connective tissue found in a true infective epithelioma. Rodent cancer, like other forms of malignant disease, infiltrates and destroys every healthy structure that it comes into contact with. Skin, muscles, cartilage, and bone all disappear before it, although it does not infect the lymphatics or the system at large; and notwithstanding that its progress is slower than that of other forms of carcinoma, it is a very serious disease, and its gravity is not sufficiently expressed by the term "rodent ulcer." Sir James Paget, in

his article in "Holmes's System of Surgery," wrote as follows: "It is possible now to class rodent ulcers among the cancerous. This being so, it seems scarcely necessary still to call them rodent ulcers; probably the term will gradually cease to be employed." Mr. C. H. Moore first used the term "rodent cancer," as the title of his book published in 1867. The infiltration which takes place into the healthy tissues is nothing like so great as in ordinary carcinoma. At the edges, where the growth is most recent, it is least, while at the centre, where it is of long standing, it is greatest. This fact has to be borne in mind during an operation, so as to avoid as much destruction as possible consistent with eradication. Like other carcinomata, it usually attacks persons past the middle age. Both sexes appear to be equally liable. The lymphatic glands are never infected. Occasionally they may be found to be enlarged, but this is always due to an inflammatory condition and will subside under appropriate treatment. The progress of the disease is slow. The general health is not disturbed for some years until the ulcer has attained a large size. Pain is nearly always conspicuous by its absence. It is only in advanced cases, when

FIG. 2.

there is a constant discharge from a large surface, that the general health suffers. Pain also may then be present if a large nerve trunk becomes involved.

The appearance of the ulcer is characteristic. It is nearly always situated on the face, between the nose and the eye. The base is of a dull red colour, glazed, and devoid of granulations, or covered by a dark scab of dried secretion. The edges are well defined, having a dentated outline and usually a slightly raised border when the ulceration has kept pace with the growth. In a neglected case it is not uncommon to find a thick boundary of new growth at some parts. The edge of the ulcer then presents a thick, well raised margin, which is rather vascular, semi-elastic, and somewhat translucent in appearance.

The diagnosis is not difficult if all the factors of the case are considered. The age of the patient, the position of the disease, the slow progress, absence of pain and lymphatic enlargement, and the appearance of the ulcer form a group of symptoms that serve to distinguish it from lupus, syphilis, and infective carcinoma.

When death occurs in an untreated case it is usually from exhaustion or hæmorrhage. The disease is more fatal in the neck because important structures are sooner involved. According to Moore the duration of life may not exceed five years from the commencement of the disease, but it may extend to twenty.

As to treatment, two methods have found favour with surgeons: excision by the knife, and destruction by caustics. Both of these are efficacious in some cases, but both have disadvantages. When the growth is excised profuse hæmorrhage takes place. This not only weakens the patient, but renders it extremely difficult for the operator to see what he is about and to know the exact limits of the disease. Any unnecessary destruction of tissue is to be strongly deprecated on account of subsequent deformity of the face. Caustics are difficult to apply; they take some hours to eat through the diseased structures, and during this time the patient suffers intolerable pain. The amount of destruction cannot be regulated with any nicety. Electricity is free from both these drawbacks and has other advantages. The electrolytic action prevents any hæmorrhage, so that the operator is able to see exactly how far he has gone and to avoid any unnecessary destruction of tissue. There is no pain after the electrical application; in fact, for some days after-sensation is quite abolished. The amount of destruction can be regulated with the greatest nicety by increasing or diminishing the strength of the current. The cicatrix which follows appears to leave less deformity than when other means have been employed (Diagrams 1 and 2). For an ordinary case one application under an anæsthetic is sufficient, but with a large ulcer two or three may be necessary. Two needles are employed, with a current strength of 200 to 400 milliampères. The caustic action of both poles is freely used, and the current is constantly alternated with a hand commutator. There is no danger in a current of this strength if care is used. (The patient in case 2 was eighty-five years of age and underwent the operation without a bad symptom.) There is no shock afterwards, and the patient can even get up the next day in many instances. No rise of temperature takes place if the wound is kept aseptic. The sloughs separate in the course of a week or ten days, and the ulcer soon heals, leaving a firm cicatrix. Skin grafting is sometimes required. If at any future time a suspicious-looking spot should appear, a short application lasting five or ten minutes will dispose of it. In any case a year or two of immunity can be promised even with a difficult subject. Case 2 has gone nearly two years without recurrence, and that after only one application. Case 1 went eighteen months without recurrence, and Case 4 has kept well for the same period since the operation. All these were advanced and difficult cases that had undergone every kind of treatment.

CASE 1.—The patient, who was aged seventy-one, was sent to me by Dr. Wm. Anderson of Richmond, Surrey. The disease first began sixteen years previously on the side of the nose, ulceration following. Caustics were applied on several occasions, and the part was once completely excised with the knife. In June, 1891, there was a deep excavated ulcer extending from the inner canthus of the right eye to the nose. The edges were slightly raised, with a dentated margin. The base was of a dull red colour, smooth and glazed. On July 25th one application of electricity was made under the A.C.E. mixture. The patient made a quick recovery, and the ulcer was completely healed a month later, without any deformity to the face. The patient remained well until April, 1893, when a small ulcer again appeared and, Dr. Gardiner assisting, a second application was made under the A.C.E. mixture. This again healed quickly. In August, 1893, the patient was perfectly well; not a trace of disease could be seen. The cicatrix was small, firm, and healthy.

CASE 2.—The patient, who was aged eighty-five, was likewise brought to me in consultation by Dr. Wm. Anderson. The disease commenced nine years previously. Caustics were applied on several occasions, but without much benefit. The part was then completely excised. On June 16th, 1891, there was an ulcer involving the conjunctiva and both eyelids of the left eye, extending on to the nose and down to the periosteum. Vision in the left eye was lost. I declined to operate, but the patient, who was a friend of the one referred to in Case 1, insisted. Mr. Makins was called in and excised the left eyeball on Sept. 7th. On the 25th electricity was applied under the A.C.E. mixture, and the ulcer and growth were destroyed. The wound healed completely in a month's time. In June, 1893, I saw Dr. Gardiner (Dr. Anderson's partner), and he informed me that the patient had had no recurrence.

CASE 3.—The patient, aged forty-eight, was sent to me by Dr. Wm. Anderson in November, 1891. Ten years previously the disease first appeared at the junction of the right ala of the nose and upper lip. The part had been scraped and caustics applied on several occasions without much benefit. It was then completely excised with the knife. There was now a large irregular ulcer extending on to the cheek and involving the nose and upper lip. The disease had crept up the mucous membrane of the right nostril for some distance and had partially destroyed the right ala. The upper lip was drawn up, and only a thin septum remained. On Dec. 2nd, under chloroform, the whole of the growth was destroyed by means of electricity. There was great difficulty in reaching the disease within the nostril. In the course of six weeks the ulcer was completely healed. In November, 1892, a small

DIAGRAM 1.

DIAGRAM 2.

spot again appeared on the lip. She came to town and remained for one night. A short application for ten minutes was made, and the spot healed. In March, 1893, an ulcer appeared in the right nostril. This was destroyed in one application and soon healed.

CASE 4.—The patient, aged fifty-three, was under the care of Sir Francis Laking. Fourteen years ago the disease commenced on the right side of the nose. The part had been scraped and caustics applied. Healing followed for a time, but the ulcer recurred. It was then excised, but again recurred. Later on excision was twice performed without good results. Homœopathic and other treatment was tried. In April, 1892, I found a large excavated ulcer covering the whole of the nose and extending up to the mucous membrane of the right eye. The disease had penetrated the nasal cartilages and the left nasal bone. The upper and lower margins presented a thick raised border. Diagram 1 shows the appearance of the face before operation. Figs. 1 and 2 show the minute structure of the growth. The general health in this instance was impaired by the extent of the disease and nervous depression. On account of the difficulties of the case three applications of electricity were necessary. The left nasal bone had to be destroyed as well as a superficial layer of cartilage. Great care was necessary in order to destroy the disease and yet leave enough tissue to preserve the symmetry of the nose. On account of the large size of the ulcer and the absence of connective tissue, healing was slower than in the other cases. Numerous skin grafts were applied. At the end of three months the wound healed and presented a cicatrix one-fourth the size of the original ulcer. (Diagram 2.) In September, 1893, eighteen months after treatment, the patient had kept well, had gained in weight and strength, and could join in all the duties and pleasures of life.

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THYROID SECRETION AS A FACTOR IN EXOPHTHALMIC GOITRE.

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MUCH has been written about exophthalmic goitre, but in many of the papers which have been published on this disease little attention has been paid to the part which the enlarged thyroid gland itself may play in the production of some of the symptoms which are usually present. Möbius has written in support of the theory that there is a toxæmia produced by the enlarged thyroid gland. Müller[1] maintains that, though the altered thyroid gland is a secondary factor in Graves' disease, it plays an important part in the production of the symptoms. Wette[2] considers that the goitre is the principal cause of the disease. He attributes the exophthalmos and palpitations to the pressure of the enlarged thyroid gland upon the sympathetic nerve, and the variable nervous symptoms to "a general intoxication due to the products which the diseased thyroid gland secretes." Mr. Arthur Maude,[3] in a paper read at the opening meeting of the Medical Society of London this year, brought forward some valuable evidence to show that the symptoms of exophthalmic goitre may be due to a general nerve poison, probably to be found in the thyroid gland. The evidence possessed at present does not justify the supposition that the thyroid gland is the primary factor in exophthalmic goitre, but I wish to draw attention to a few facts which, when taken together, do indicate that some of the symptoms may be due to the absorption of an excessive or possibly altered secretion from that gland.

There is now strong evidence that the thyroid gland is a secretory gland—ductless, it is true; but it has been shown by King,[4] Baber and other observers that the secretion passes along the lymphatics into the general circulation, and so is distributed all over the body. The effects of atrophy or removal of the thyroid gland in man and in many of the lower

[1] Deutsches Archiv für Klinische Medicin, li., 4 und 5.
[2] Archiv für Klinische Chirurgie, xliv., 3.
[3] THE LANCET, Oct. 21st, 1893.
[4] Professor Victor Horsley: Remarks on the Function of the Thyroid Gland, Brit. Med. Jour., Jan. 30th, 1892.

animals are now well known, the symptoms of the resulting condition of myxœdema or cachexia strumipriva being due to the loss of thyroid secretion. That this is the correct explanation of that condition is shown by the fact that the symptoms of cachexia strumipriva following thyroidectomy can be considerably lessened, if not entirely removed, by hypodermic injections of thyroid juice. In the case of dogs this has been shown to be the case by Vessale and by Gley. In the monkey I have recently shown[5] that the usual symptoms of cachexia strumipriva, first described by Professor Victor Horsley,[6] which came on after removal of the thyroid gland—viz, swelling of the face, hebetude, tremor, anæmia, and subnormal temperature—were all removed by hypodermic injections of thyroid extract. After the injections were discontinued the symptoms of course returned, and the animal died of acute myxœdema and dysentery. The total removal of the thyroid gland was proved by post-mortem examination.[7] In man the results of the treatment of myxœdema have shown that in a favourable case the symptoms of this condition can be entirely removed by the administration of thyroid juice in one form or another. We have thus the strongest evidence of the secretory function of the thyroid gland, for there appears to be no other supposition by which the action of the thyroid juice in the above instances can be explained. In exophthalmic goitre the thyroid gland is nearly always enlarged and, as Professor Greenfield[8] has stated, there is "an enormous increase in the secreting structure of the thyroid and also of the colloid material in the spaces of the gland." It may reasonably be supposed that an increase of gland substance of this character indicates an increase of secretion, and even in those cases where the gland is not as yet appreciably enlarged it is quite possible that a hypersecretion may be going on. Mr. Maude, who has been able to watch cases of Graves' disease for long periods, has found that the thyroid gland may vary in size from day to day. Such variations are doubtless due to alterations in the vascular supply, the temporary increase in size thus being similar to the turgescence which takes place in the other glands—such as the salivary glands—during active secretion, a similarity which was pointed out to me by Dr. F. W. Mott. In support of this view it is a significant fact that over-doses of thyroid extract produce symptoms similar to those which occur in exophthalmic goitre. As a result of these I have observed acceleration of the pulse, tremor, headache, slight sweating, rise of temperature above normal, and prostration, all of which are symptoms which occur in exophthalmic goitre. One of the most usual effects of overdoses of thyroid juice is considerable acceleration of the pulse. This may occur during both the first and the second stages of the treatment of a case of myxœdema with thyroid extract. Thus in the case of a woman aged fifty-six who has had myxœdema for several years, a daily dose of ten minims of thyroid extract accelerated the pulse from 80 beats to 120 or 130 a minute. Dr. Hector Mackenzie[9] has observed the same symptoms after the administration of large doses of the thyroid gland itself. The occurrence of tremor, with accelerated pulse, hot flushings, and sweating, after prolonged administration of thyroid extract was well illustrated by one of my cases. This patient first began to be treated with thyroid extract in April, 1891. She was the first case of myxœdema which was treated with this remedy, and for long has been free from symptoms of myxœdema. Since the beginning of this year she has taken one drachm of thyroid extract every week in six daily doses of ten minims each without intermission, as this was found to be a suitable dose for her in the winter. At the end of last July she came to see me complaining of "hot flushes." On examination I found that the pulse was 112 and the temperature 98·4° F. The skin was flushed and moist, and there was a fine tremor of the hands, just like that which is often present in exophthalmic goitre. I attributed these symptoms to her having taken doses of thyroid extract, which, though suitable for winter, were larger than was necessary during a hot summer. This view was confirmed by the rapid disappearance of the symptoms when the doses were diminished. The symptoms of myxœdema nearly always improve without any treatment during the summer, so that it might be expected that less thyroid juice would be necessary to maintain a condition of health then than during cold weather, when the symptoms, as a rule, become aggravated. A rise of temperature above the normal as a result of taking thyroid juice occurs both in man and in the lower animals. In rabbits and monkeys I have found that a rise of temperature, sometimes to as much as 2° or 3° above the normal, follows a hypodermic injection of thyroid extract. This influence of thyroid secretion upon the temperature is further illustrated by the way the temperature falls below normal when that secretion is no longer formed, as in myxœdema and cachexia strumipriva.

If some of the symptoms of exophthalmic goitre are due to over-activity of the thyroid gland it should be expected that any method of treatment which leads to diminution of the size of the enlarged thyroid gland or to a lessening of its secretory activity would improve the condition of the patient, and this has been found to be the case. Operative treatment undertaken with this object in view has been followed by recovery. As an example of this Dr. Credé's case [10] may be mentioned, in which, after total extirpation of the thyroid gland, the symptoms of exophthalmic goitre entirely disappeared. Stierlin has collected twenty-nine cases of exophthalmic goitre in which an operation upon the thyroid gland had been performed, and in twenty-two of these complete recovery took place. Then medical treatment directed towards the reduction of the enlarged thyroid gland is useful. My father, who has seen a large number of cases of exophthalmic goitre, finds that the inunction of the red iodide of mercury ointment over the thyroid gland brings this about and is a valuable aid to other methods of treatment in this disease. Belladonna checks secretion in other secretory glands, and Dr. Gowers [11] says that it "is the drug that has seemed most often distinctly useful" in exophthalmic goitre, probably because it also checks thyroid secretion. It has been shown experimentally by Wyss that thyroid secretion can be influenced by drugs, for he found that injections of pilocarpine increased the secretory activity of this gland considerably. The beneficial action of this latter drug in myxœdema is, I believe, largely due to the promotion of increased activity in the small portions of glandular structure which still remain in the diseased thyroid gland, such remnants of gland structure being visible even in the thyroid glands of those who have died from myxœdema.

The relationship of exophthalmic goitre to myxœdema also throws some light upon this subject. I refer especially to those cases in which the symptoms of exophthalmic goitre have disappeared and those of myxœdema have developed afterwards. Dr. Gowers [12] has observed "myxœdematous swelling of the eyelids and pigmentation of the skin to follow permanent recovery from exophthalmic goitre." Dr. Corkhill [13] has recorded a case in which symptoms of Graves' disease were followed by myxœdema. In the discussion on Mr. Maude's paper Dr. Ord said that he had seen symptoms of myxœdema develop after the enlarged thyroid gland had been too rapidly reduced in size by treatment, and Dr. Bowles mentioned two cases in which there had been Graves' disease in early life followed by myxœdema afterwards. It is an interesting fact that the disappearance of the symptoms of exophthalmic goitre in these cases should be followed later by distinct symptoms of myxœdema due to atrophy of the thyroid gland; and may it not have been a gradual failure in the supply of thyroid secretion which led to the disappearance of the symptoms of the former disease, as it did to the production of those of the latter at a later period?

Dr. Byrom Bramwell [14] has clearly pointed out the striking contrast which exists between some symptoms of exophthalmic goitre and those of myxœdema. This is what should be expected if the former are due to an excessive supply of thyroid secretion, an exactly opposite condition to that which obtains in myxœdema. This contrast is well shown when the symptoms are arranged in parallel columns.

Exophthalmic Goitre.	*Myxœdema.*
Hypertrophy of thyroid gland.	Atrophy of thyroid gland.
Acceleration of pulse.	Slowing of pulse.
Excessive perspiration.	Perspiration diminished or absent.
Electrical resistance of skin is diminished.	Electrical resistance of skin is increased.
Temperature normal or above normal.	Temperature subnormal.
Excitable temperament.	Stolid temperament.

[5] Brit. Med. Jour., Sept. 23rd, 1893.
[6] Brown Lectures, 1885.
[7] Towards the expenses of this research a grant was made by the British Medical Association on the recommendation of the Scientific Grants Committee of the Association.
[8] Edinburgh Medical Journal, May, 1893.
[9] Brit. Med. Jour., Oct. 29th, 1892.
[10] Clinical Society's Report on Myxœdema, p. 110.
[11] Diseases of the Nervous System, vol. ii., p. 893.
[12] Loc. cit., p. 880.
[13] Brit. Med. Jour., Jan. 7th, 1893.
[14] Edinburgh Medical Journal, May, 1893.

If further observations also tend to show that the various symptoms mentioned in this paper can be explained in the manner indicated, it will simplify the problem which still remains to be solved as to the causation of other symptoms and of the change in the thyroid gland itself. However, the evidence which exists seems to indicate clearly that any line of treatment which is adopted for exophthalmic goitre ought to include special measures directed to the improvement of the abnormal condition of the thyroid gland which is developed in this disease.

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NOTES AND QUERIES ON SMALL-POX.

BY C. PORTER, M.D., D.P.H. CAMB., M.R.C.S ENG.,
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As regards the question raised by Dr. Niven in his paper on "Small-pox Problems—is Compulsory Vaccination Necessary?"[1] few medical men will, I think, be found to answer it, as it stands, otherwise than affirmatively. A possibly more debatable point, to my mind, is raised by the query, "At what age is compulsory vaccination most beneficial?" Although, as Dr. Niven has pointed out, the first decade of life is by no means the most favourable for contracting small-pox, the protective influence, and therefore the desirability, of infantile vaccination (as shown by the enormous and universal preponderance of small-pox deaths amongst unvaccinated as compared with vaccinated children) cannot be successfully disputed. On the other hand, *until revaccination be made compulsory during the third quinquennium* it seems open to doubt whether the single vaccination, which is now compulsory, might not with advantage be postponed until that period is reached. The protection then afforded would be effected at a more susceptible age, its duration would be more permanent, and much of the existing objection to vaccination traceable to a sentimental, but natural, dislike to inflict suffering on very young and perhaps weakly children would be obviated. In addition, the abandonment of infantile vaccination would render inapplicable the cogent excuse which vaccination in infancy appears at present to afford many adults for refusing revaccination after exposure to infection. As regards the value of revaccination of families in the presence of small-pox, no one who has had to deal in a preventive capacity with this disease can have failed to have been impressed with the striking protective results of the operation and the disastrous consequences of refusal to submit to it. In the district for which I act several cases of this kind occurred of so convincing a nature that the authority ordered the particulars to be circulated in handbill form in the neighbourhood in which the sufferers lived, and with a fairly good result as regards increase in number of those seeking revaccination. Under these circumstances, and also as regards all tramps, I believe that revaccination should certainly be compulsory, and that when not performed by the medical officer of health or his special deputy a certificate of strict compliance with Government requirements might with great advantage be insisted upon. An official school register of vaccination marks would undoubtedly be a step in the right direction, as at present schoolmasters appear to be unwilling, for fear of giving offence, to facilitate the acquisition of information by the medical officer of health as to their scholars' condition in regard to vaccination. An easy method of estimating the size of vaccination marks is desirable. I am aware that it has been suggested to mark them with an aniline blue pencil, and to take an impression therefrom on paper; but this result is not sufficiently easily expressible in accurate terms of ordinary measurement.

Before leaving the subject of vaccination I desire to formulate the following queries:—1. Are the effects of primary vaccination performed during the second decade of life to be regarded as permanent in duration? 2. Can the protective influence of revaccination be annulled by severe constitutional illness? I am disposed to believe that it can, because I have successfully revaccinated two individuals who since their previous revaccination had suffered from a severe attack of typhoid fever and acute rheumatism respectively. 3. If a patient suffering from an apparently well-marked attack of small-pox is successfully vaccinated whilst so suffering, are we therefore to conclude that his illness is not small-pox? In the early part of the year I read a communication by Mr. J. H. Gornall[2] of Warrington, in which this conclusion was apparently adopted, the case in question being one in which there had been a traceable exposure to the infection of chicken-pox, but no known exposure to that of small-pox, for although the sufferer was admitted to the small-pox hospital of a town in which the disease was then very prevalent, only six days had elapsed between her arrival in the district and the first onset of symptoms. Questioning the soundness of this apparent conclusion, I shortly afterwards vaccinated, at the time of their admission to hospital, and on the fifth day of the disease, two pit-sinkers suffering from well-marked small-pox and with a history of recent exposure to small-pox infection. In both cases the result was successful and followed a fairly typical course. I have nevertheless not a shadow of doubt that the disease from which these men were suffering was true small-pox.

Adverting now to the appearance of small-pox in the scarlet fever wards of the Westhulme Hospital at Oldham, I give the details of a somewhat similar occurrence at Stockport, and of the causes to which it was traced.

On Jan. 13th a child was admitted to the Isolation Hospital suffering from scarlet fever. On Feb. 15th the patient presented a papular eruption which rapidly became typically variolous. As strict precautions had been ordered and adopted to prevent communication between the scarlet fever and small-pox pavilions, a searching investigation was made into the occurrence, when it was elicited that a nurse had secretly kept a cat in the scarlet fever pavilion and that this cat had been seen at the small-pox end. This vehicle of infection was effectually eliminated, the ward thoroughly cleansed with corrosive sublimate solution, and fumigated while damp with sulphurous acid. On the 28th, however, a second case of small-pox occurred in the same scarlet fever ward, from whence the patients were again immediately removed and the disinfecting process repeated. Happening at this time to go into the ward (then empty) of the small-pox pavilion, which is nearest to the scarlet fever end, a smell of sulphur was distinctly perceptible, and on examination a large aperture was found in the floor at one end of the ward, through which the hot-water pipes made their exit—a similar opening existing in the floor of the scarlet fever ward. By getting beneath the floor and placing lights beneath each of the apertures referred to, the existence of a subterranean passage communicating with both pavilions was established, and on pouring oil of peppermint and boiling water through the aperture at the small-pox end its odour soon became strongly perceptible at the scarlet fever end. Evidently the higher temperature of the scarlet fever ward, which was in use, had aspirated infected air from an empty ward of the small-pox pavilion, through this underground passage for the hot-water pipes, to the scarlet fever end. This structural defect having been remedied, no further cases of secondary small-pox have since occurred.

Finally, as regards the safeguards, I am unable to agree with the view put forward by Dr. Patterson that thorough disinfection of houses in which small-pox has occurred is uncalled for. Surely, if the germs of this disease can retain their virulence after a passage of hundreds of yards through the open air, they are doubly likely to do so in the close atmosphere of ill-ventilated houses, and if that be so it certainly behoves us to leave no stone unturned to remove or purify all possible fomites.

In connexion with safeguards no reference has, I think, been made to the nightly inspection of common lodging-houses. In Stockport the disease was so repeatedly reintroduced by vagrant lodgers at these places that a nightly inspection, between the hours of 9.30 P.M. and 11 P.M., of every lodging-house in the town was organised with excellent results. My committee, at my suggestion, also authorised a young medical man to accompany the inspector for each one of the four sanitary sub-districts every fourth night, supplied him with lymph, and paid him 2*s.* 6*d.* for every vaccination he effected. Over eighty of the permanent habitués of these lodging-houses, who are specially liable to contact with infected strangers, were by vaccination protected themselves, and thereupon to a considerable extent ceased to

[1] A paper read before the North-West Branch of the Society of Medical Officers of Health on Oct. 13th, 1893.

[2] Brit. Med. Jour., Feb. 11th, 1893.

constitute a standing menace to the health of the inhabitants at large. This nightly inspection led, in addition, to the early detection and prompt removal of several cases, and kept the lodging-house deputies on the alert.

As regards the apparently healthy inmates of infected houses, I may state that since the recent completion of our present very perfect steam disinfecting chamber and baths, it has in several instances been found easily practicable to remove these individuals at once thereto, and, while they are bathing and being revaccinated, to disinfect their clothing. When discharged thus purified they were at once permitted to resume their ordinary avocations, but were kept under sanitary surveillance for a fortnight. In consequence, to some extent at any rate, of these and other measures, and notwithstanding twenty-two fresh introductions of the disease, Stockport has remained comparatively unscathed this year in the midst of a sea of small-pox, the whole number of cases which have occurred being only twenty-nine. Of the twenty-two fresh introductions, ten were tramps, three were inmates of a common lodging-house in constant contact with tramps, one was a travelling music-hall singer, two came from a house in Ardwick where small-pox had broken out, one had attended a funeral thirteen days before in a village where the disease was then prevalent, one had been delivering beer at infected houses in other districts, and the remaining four could not be satisfactorily traced. Of the seven secondary cases reported, one was revaccinated six days after first exposure, the attack being greatly modified, five (of whom two died) had refused revaccination, whilst to one sufferer revaccination was not specially offered as she was not known to have been exposed to infection till her own case was reported.

As regards the system of quarantine in small-pox I have seen it very successfully applied by Dr. M. K. Robinson of East Kent, during a limited outbreak in Dover in the spring of 1892, and I am inclined to believe that in small communities it is applicable with a fair prospect of success, unless there be a large number of practically simultaneous occurrences of the disease.

Stockport.

EXTRACTION OF CATARACT.

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THIS short paper is founded on the notes of fifty-two cases of extraction without iridectomy and fifty-eight of extraction associated with the removal of a portion of the iris. The operations were performed between May, 1891, and May, 1893. The results are classified (as in two previous communications[1] on extraction of cataract) under three heads—"successful," "partially successful," and "failures." Under the first head are placed all eyes which, aided by a suitable convex lens, could read Jaeger types 1 to 16, had vision for distance = $\frac{6}{9}$ to $\frac{6}{6}$, could tell the time on a watch a fortnight or three weeks after the operation, or, in patients unable to read, could see the stitches in a shirt wristband or could thread a large sewing needle. Under the second head are placed eyes that could see to count fingers, tell one finger from another, and whether the back or front of the hand was being looked at. Under the third head are placed all eyes that saw no better or worse than before the operation. The results are fairly good, but are utterly worthless as a comparison between the different methods of performing extraction, and for this reason—*the whole of the non-iridectomy operations were picked cases.* All patients in whose eyes there was a doubt as to soundness, or where the cataracts were very immature, or if from any cause the patients themselves were considered likely to give trouble—e.g., fat, wheezy persons, those who appeared restless, drunkards, or persons out of health in any way, who came under treatment during the same period—were operated on by extraction associated with iridectomy performed simultaneously, except in some half dozen cases in which it had been previously done as a preliminary, or for some other reason, such as closed pupil, glaucoma &c. Further, in all cases where any difficulty arose during the operation, such as the iris being accidentally wounded, if the pupil did not readily dilate, or if after the removal of the lens there was any difficulty in returning the iris, or if it showed any tendency to prolapse after return, iridectomy was at once performed, and the case was converted into one of extraction with associated iridectomy. I do not for one moment wish to be considered an advocate for the indiscriminate performance of extraction without iridectomy; on the contrary, I am very strongly of opinion that had I operated on the whole 110 eyes by this method my failures would have been nearer a dozen than—as they are—three only in the two series of cases. I am satisfied, however, that it should have a place in ophthalmic surgery and be performed in suitable cases. The operation has much to recommend it, for it is very easy to perform, the injury done to the eye is but slight, healing is very rapid in the cases which do well, and the appearance of the eye is not altered; the results are as good as in the cases where iridectomy was performed, but I do not think they are any better. As already stated, I picked my cases, and even then I have one failure to record; nor do I ever hope to get the results up to those that are sometimes published—e.g., I have before me the report of an ophthalmic hospital in which considerably over 100 extractions without iridectomy were performed in a year without *one single failure*, and but three or four cases of partial success only. I have no difficulty in accounting for such excellent results—I simply do not believe the statement. In selecting my cases for extraction without iridectomy I have regard, first, to the patient. I take those who are moderately well nourished, in fairly sound health, and of tranquil disposition: the "dear old ladies who could not do wrong," as the late Mr. G. Critchett used to describe them, are my ideals of suitable cases. With regard to the eye I see that the cataract is fairly mature, the pupil circular and freely movable, the anterior chamber good, and the cornea of fair size. I discard all those cases where the cataract has a bluish look and the iris appears to be pushed forward, and I do not like cases which I may describe as young senile cataracts—i.e., cataracts occurring in patients aged from forty to forty-seven; in such the lens is generally large and rather soft, and a good deal of it is liable to be left behind the iris; the pupils are large and contract sluggishly, and there is almost a certainty that the iris will prolapse if left intact; on the other hand, a lens with moderately opaque nucleus and with fairly numerous cortical striæ, even though there be much transparent matter between the striæ in persons aged fifty or upwards, I consider quite suitable for extraction without iridectomy. Very old cataracts where the lens has become friable and calcareous are not suitable for extraction without iridectomy, as pieces are sure to be left behind and will very likely set up iritis. All the cases in the non-iridectomy series were senile cataracts. In forty cases (after the operation) the pupil was central or nearly central, circular or nearly so, and more or less movable. In six cases the pupil was drawn slightly towards the incision and was more or less oval. In five cases there was a large prolapse of the iris; the vitreous was lost in one case; in eight cases needle operations were performed. In eight cases severe iritis followed extraction. Prolapsed iris was cut off in one case. A very large prolapse of the iris followed by choroido-iritis was the cause of the loss of the eye in the one unsuccessful case. In one case acute glaucoma followed a needle operation and was entirely relieved by sclerotomy, the pupil being central, circular, and mobile, and the vision = $\frac{6}{12}$. My results are as follows: number of cases, all senile cataracts, 52; successful, 46; partially successful, 4; failure, 1; result not recorded, 1. The results of the 58 cases operated on during the same period by small flap section with iridectomy were: successful, 40; partially successful, 11; failures, 2; not recorded, 5. It will be seen that, though the failures are nearly double, the greatest difference is in the number of partially successful cases; some of these are accounted for by the conditions mentioned below, while others were referable to causes inseparable from the operation. In two cases the vitreous was lost; needle operations were performed in ten eyes, in one at three different times. In six cases Couper's capsule forceps were used for rupturing the capsule; in one case a sharp hook was employed to remove the lens, which was enclosed in a tough capsule which came away entire; in two cases a second iridectomy was required. There were three cases of cortical cataract in this series; the remainder were nuclear, though some occurred in rather young people, and there was a good deal of soft cortex. Several eyes were unsound, and these go to swell the number of partial successes. One eye had retinal detachment. One eye had a high degree of myopia, with extensive choroid changes. Two eyes had corneal opacities. In two eyes iridectomy had been performed for glaucoma, in three for cloud pupils. There

[1] Transactions of the Royal Medical and Chirurgical Society, vol. lxii.; Transactions of the Ophthalmological Society, vol. iv.

is no record of cases of severe iritis following the extraction. The two failures were caused by suppuration of the cornea and iris. The five "not recorded" cases will probably come later into the partially successful class.

Brook-street, W.

NOTES ON THE PRESERVATION OF CATGUT LIGATURES.

BY J. WARRINGTON HAWARD, F.R.C.S. ENG.,
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WITH EXPERIMENTS ON THEIR ASEPTICITY AND STRENGTH.

BY CHARLES SLATER, M.B. CAMB., M.R.C.S. ENG.,
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THE PRESERVATION OF CATGUT LIGATURES.

CATGUT is in many respects so convenient a material for the ligature of arteries that if it could be relied on as being free from septic contamination it would still be preferred by many surgeons to any other kind of ligature; moreover, it is desirable to have at hand a ligature which can be kept ready for immediate use without further preparation. The preservation of catgut in carbolised oil is generally recognised as being untrustworthy and objectionable; it seemed, therefore, to be worth while to ascertain whether this ligature could be kept in some convenient and reliable antiseptic solution whence it could be taken ready for use. I therefore asked Dr. Charles Slater whether he would be kind enough to submit to bacteriological examination some specimens of sulpho-chromic catgut in solutions prepared for me by Mr. Montague of the firm of Messrs. Wright and Co. These were as follows: *A.* Sulpho-chromic catgut, No. 4, placed for forty-eight hours in a 10 per cent. solution of carbolic acid in glycerine, then for five hours in a ½ per cent. solution of chromic acid in water, and finally preserved in absolute alcohol. *B.* Sulpho-chromic catgut, No. 4, preserved in a solution of one part of carbolic acid in twenty parts of absolute alcohol. *C.* The same quality of catgut preserved in a solution of one part of carbolic acid to twenty parts of distilled water. *D.* The same catgut preserved in a solution of one part of carbolic acid to forty parts of distilled water. *A* had been kept for three years; *B*, *C*, and *D* for rather more than one year. It will be seen from Dr. Slater's experiments that *A* and *B* were neither of them free from contamination, but that both *C* and *D* were absolutely sterile; that is to say, sulpho-chromic catgut kept in an aqueous solution of carbolic acid (1 in 20 or 1 in 40) is aseptic and can be used without further preparation. Catgut thus preserved remains strong (see Dr. Slater's experiments as to its breaking strain), pliable, and smooth; it is easily tied and remains sufficiently long unabsorbed. Embedded in the tissues as a suture I have found it at the end of a fortnight to be practically unchanged.

The catgut in *A* and *B* (alcoholic solution) was hard, less pliable, and not easily tied with security. Of the two specimens in solutions of carbolic acid, that in the stronger solution (1 in 20) was found to be the firmer and most inelastic. This is therefore the most appropriate of the solutions experimented with, and from it a ligature can be taken ready for use without any further treatment.

EXPERIMENTS ON THE ASEPTICITY AND STRENGTH OF CATGUT LIGATURES.

At Mr. Warrington Haward's request I examined the ligatures preserved in the various media described above. In order to determine whether they were aseptic, small portions—about two inches—were cut off, washed thoroughly in sterile distilled water, and then transferred to tubes of nutrient material. The experiments were made in pairs; one tube was incubated at 37° C. and the other left at the ordinary temperature. The antiseptic was removed by a single washing in a large quantity of water, the ligature being allowed to soak for forty-eight hours; or several changes of water were used and the catgut was allowed to soak for an hour on each occasion. In some instances the nutrien medium was also changed, so that a further washing took place in the bouillon. In any case the nutrient medium, in those tubes in which growth did not take place, was subsequently inoculated in order to determine whether the absence of growth was due to retained antiseptic. In all cases the medium was found to be capable of permitting copious growth. The following table gives a summary of the results of the experiments, which speak strongly in favour of the simple watery solution of carbolic acid as a preservative.

TABLE I.

Showing the Results of Experiments on Catgut Ligatures kept in various Fluids.

Nature of ligature and preservative fluid.	Total number of cultivation experiments.	Number of experiments in which growth occurred.	Number of experiments remaining sterile.
A. Sulpho-chromic catgut No. 4 placed for forty-eight hours in 10 per cent. carbolic acid and glycerine, and for five hours in 0·5 per cent. chromic acid in water, preserved in absolute alcohol for three years	14	9	5
B. Sulpho-chromic catgut preserved in absolute alcohol with 5 per cent. carbolic acid for one year	11	2	9
C. Sulpho-chromic catgut preserved in 5 per cent. solution of carbolic acid in water for one year	8	0	8
D. Sulpho-chromic catgut preserved in 2·5 per cent. watery solution of carbolic acid for one year	8	0	8

Experiments were also undertaken to determine whether the various preservative fluids had any influence on the tensile strength of the catgut. Portions of catgut from eight to ten inches long—about the usual length employed for ligatures—were tested by attaching to them gradually increasing weights and noting the maximum weight carried and the breaking weight. The results can only be regarded as approximate, but they are comparable among themselves. As was to be expected, different portions of catgut from the same sample showed considerable variation in their breaking points. Though attention was paid to the method of suspension in order to avoid the introduction of weakening knots and twists, these could not be altogether eliminated. As, however, the examination was for the purpose of ascertaining the tensile strength of the material when used as a ligature the existence of a knot or twist in the tested portion does not detract from the practical value of the results. The following table shows the results of these experiments:—

TABLE II.

Experiments on the Breaking-point of Ligatures.

Nature of ligature and preservative fluid.	Number of experiments.	Range of weights between which breaking point varied.	Average of weight at which breaking point occurred.
		lb.	lb.
A. In absolute alcohol	5	12 to 18½	14⅘ to 14¾
A. After soakage for half an hour in water	3	9 to 11	9½ to 9⅔
B. In absolute alcohol, containing 5 per cent. of carbolic acid	3	11¼ to 14	11¼ to 12¼
B. After soaking for half an hour in water	3	9½	9 to 9½
C. In 5 per cent. of watery solution of carbolic acid..	4	10½ to 11	10½ to 11
D. In 2·5 per cent. of watery solution of carbolic acid..	3	10 to 12	10½ to 10⅔

As might have been expected, the catgut preserved in absolute alcohol, which had become hardened and thickened,

proved to be the strongest. Similar, though less marked, alterations had occurred in the material kept in carbolised alcohol, which was the next strongest. The results obtained when the material is tested directly after removal from the alcoholic preservative fluids should be compared with those obtained with the same catgut after a preliminary soaking in water. It will be seen that this soaking reduces the average breaking weight to a point below that which obtains in the case of the catgut preserved in watery carbolic acid; this is important, because the ligatures will in many instances be subjected to this preliminary soaking in the latter. These experiments show, then, that the catgut which had been kept in watery carbolic acid was invariably sterile, while that which had been preserved in alcohol or an alcoholic solution of carbolic acid was not. Although the ligatures kept in alcohol were somewhat stronger than those from the watery solutions, yet the excess of strength was not great and was lost when there was a preliminary passage through water. The disadvantages arising from the physical changes produced by the alcohol have been mentioned by Mr. Haward.

THE SO-CALLED "PARASITIC PROTOZOA" OF MAMMARY CARCINOMA.[1]

BY HERBERT SNOW, M.D. LOND. &c.,
SURGEON TO THE CANCER HOSPITAL, BROMPTON.

HAVING been engaged for the past seventeen years in the almost exclusive investigation, clinical and pathological, of cancer, I may fairly claim the privilege of briefly stating my ideas on this interesting subject. I shall endeavour as succinctly as possible to summarise the reasons for dissenting *in toto* from the well-known views of Dr. Armand Ruffer. It is hardly necessary to remark, in the first place, that the so-called "parasites" are only old acquaintances under a new name. They have long been familiar as microscopical phenomena to those whose work specially lay in the direction of malignant diseases, and they were elaborately described by Professor Virchow in 1851 under the title "Die Endogene Zellenbildung beim Krebs." Plate II. in the *Archiv* for that year (Band iii.) accurately delineates them. The only question at issue, then, is the interpretation to be placed upon these appearances. Previously to Dr. Ruffer's writings they were universally regarded as produced by endogenous cell-formation, combined with the well-known tendency of epithelial nuclei to degenerate into a mucoid fluid, whence eventually results a minute vacuole, or microscopic cyst, within the cell protoplasm, often containing some remnant of the nucleus in the form of a minute granular mass floating free within the cavity.

1. We have not the slightest evidence that the bodies now described as parasites are other than degenerate or degenerating nuclei. So far as I have been able to gather from Dr. Ruffer's papers on this subject the points relied on in evidence of the microbic nature of the phenomena in question are, in the first place, a morphological resemblance to psorosperms which infest the rabbit's liver; secondly, differentiation by colour-stains; and lastly, but not least, the opinion of Professor Metchnikoff. Now, whatever the superficial likeness to liver coccidia, the clinical course of the rabbit's disease and of cancer respectively totally prevent comparison, microscopic or otherwise, between the two sets of phenomena. The former attacks young rabbits, which may spontaneously recover completely. Cancer is a malady almost special to the old, saving always the minority of cases in which there is a congenital element, and which in a recently published work I have placed in a distinct class—viz., that of the blastomata. Though its progress is occasionally slow, a spontaneous cure is unknown. Another morphological point adduced is a wrinkling of the edges of the capsule. This, sometimes found in a normal nucleus, is a common result of hardening reagents acting on cell-protoplasms. Fig. 179 in Stirling's "Handbook of Practical Physiology" well shows it in two cells of a spinal ganglion. The same remark applies to the filaments supposed to radiate from the central mass to its wall, and to suspend the "psorosperm" in its capsule. The acquiescence of Professor Metchnikoff and of other eminent scientists may be dismissed with the remark that, however distinguished in other fields of research, they hardly appear to have specially studied malignant diseases. The differentiation by colour-stains was totally wanting in the slides exhibited at the meeting of the British Medical Association held at Nottingham last year. In the more recently prepared specimens cursory examination will show it to be apparent only. The sections are seen to be immensely over-stained; under which circumstances the degenerate nuclei naturally fail to absorb the dye, and appear to be of a different hue from the remainder of the deeply tinged parenchyma. This over-staining has the disadvantage that it masks the real nature of the phenomena. Commonly, when a nucleus undergoes mucoid degeneration, a remnant persists for a time as a tiny granular mass within the vacuole. The granules are filaments of the nuclear reticulum seen in the plane of vision. In the preparations of Dr. Ruffer they are converted into an opaque and amorphous blotch. One of the slides shows with particular clearness the bodies regarded as micro-organisms. It is one of mammary carcinoma (metastatic) in the kidney, with cells particularly large and multi-nucleated. Inasmuch as no special staining process has been employed, the section having been mounted in 1887 and stained with logwood, which has not been properly fixed and has thus faded almost wholly, the normal appearance of the nuclei is not disguised, and their transition into the perfect vacuole can be accurately traced.

2. The most conspicuous disparities prevail between the phenomena of cancerous diseases, on the one hand, and, on the other, those of every single malady proved to be of microbic source. Of all lesions in the human body produced by microparasites, actinomycosis displays phenomena bearing the highest degree of outward resemblance to those of cancer. The microscopic appearances of the fungus are peculiarly striking and well-marked, and its introduction by certain food is also nearly certain. In leprosy and tuberculosis the microscopic features of the bacilli are distinctive; the diseases have always been regarded as contagious, a fact which may be regarded as proved by the discovery of the microbe. The contagium of the latter is most evident when access to a new soil is gained; thus the aboriginal races go down before Europeans as chaff before the wind, mainly from the introduction of phthisis (De Quatrefages). This law holds good with all zymotic or contagious disorders, as shown on our occupation of the Fiji Islands. In malarious fevers a large number of persons simultaneously exposed to the same climatic environments are attacked. Cholera is similarly epidemic, and its propagation through the water-supply is a matter of certainty. Tetanus is known to be induced by soil contamination. Even pneumonia is sometimes epidemic, and when sporadic it can nearly always be traced to well-marked septic influences, in addition, it may be, to exposure to cold or wet. *Per contra*, in malignant disease there is a total absence of any contagious element; transmission cannot be effected by the closest personal contact, as is demonstrated by the conspicuously frequent uterine disease of the labouring classes. Cancer prevails among civilised races everywhere, and is all but absent among savages,[2] yet no virulent outbreak in the aboriginal tribes brought into contact with Europeans has ever been chronicled. By the most earnest attempts it cannot be brought into causal association with conditions of soil, air, or of climate in any shape. The Collective Investigation Committee of the British Medical Association,[3] after a very elaborate research failed to procure any support for the geographical theory promulgated by Mr. Haviland, and the latter was more recently tested by myself[4] with a like result. Neither can it be referred to diet; vegetarians and Jews, on behalf of whom immunity has been claimed, have been proved to be equally subject to its ravages with individuals of other denominations. With the zymotic and pyrexial class of maladies malignant disease

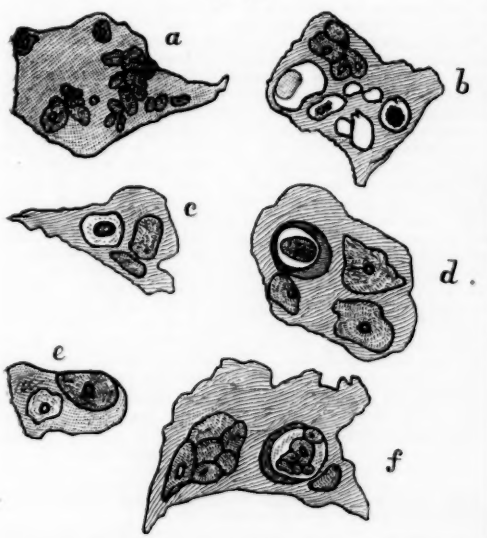
[1] A paper in the Pathological Section at the Newcastle meeting of the British Medical Association.

[2] See Davidson's Geographical Pathology.
[3] Brit. Med. Jour., Feb. 26th, 1887.
[4] THE LANCET, Nov. 22nd, 1890.

has obviously nothing in common; each example is purely sporadic, no group of persons are found synchronously or even consecutively attacked, and every case appears to arise independently of any other.

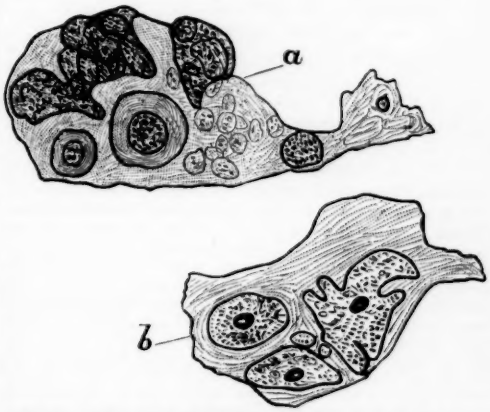
3. The point, however, which most saliently differentiates cancerous lesions from all hitherto traced to a microbe, whether vegetable or animal, is the fact that the metastases of cancer are invariably (aberrant) reproductions of the tissue originally attacked, down to the most minute points of function and of relative arrangement. Every cell constituent of a secondary malignant deposit is obviously a direct descendant of the cells amid which the disease process began; and is, moreover, grouped relatively to the remainder as in the primary *point d'appui*. Thus the metastases of carcinoma of the breast preserve throughout the acinar structure of the normal mamma; those of the intestinal cylindroma the follicular composition of Lieberkühn's crypts; pigment-producing cells, as in melanotic sarcoma, continue to secrete melanine, and so on. On the other hand, in leprosy, in actinomycosis, in tuberculosis, and in the hepatic lesions of the rabbit the intruding microbe excites proliferation of the cells proper to the particular tissue concerned, and nothing more. No known micro-parasite is able to effect the transportation of these cells, with all their distinctive attributes, from one part of the body to another more or less distant. Hence I submit that there is an *a priori* improbability, falling not far short of sheer impossibility, that an extraneous parasite, whether vegetable or animal, can be the cause of cancer development. Hence also follows what I conceive to be a most important corollary at the present juncture: that the laborious search for such an extremely hypothetical creature should no longer be suffered to divert the energies of investigators from those numerous domains of cancer pathology in which valid work remains to be done.

FIG. 1.



a represents under medium power (× 240) an average cell from breast carcinoma (metastatic) in the kidney. In *b* four nuclei are normal, the remainder more or less completely advanced in vacuolation. Under this magnification four of the vacuoles seem to be perfectly empty; three others show residual traces of the nucleus; in two of these latter the remains of the nuclear fibrils are seen as sharply defined granules, in the third an amorphous rounded lump is in contact with the wall. *c* is a smaller cell with two normal nuclei and a degenerate nucleus. *d* has three normal nuclei with a fourth in the vacuole stage; for two-thirds of its circumference the latter is bordered by a shaded area, seemingly indicating some commencing liquefaction of the surrounding cell protoplasm. *e* is a small cell with one nucleus very faintly stained in comparison with the other. *f* is an amorphous cell; of its two huge primary nuclei endogenously developing multiple secondary nuclei, one is assuming the round vacuole form. Within are a group of daughter nuclei, which apparently would soon have become enclosed within the minute cyst and have then for a time floated as a free mass within its fluid contents.

FIG. 2.



This figure displays similar appearances to Fig. 1 under a high power (one-twelfth o. i. Leitz, A eyepiece = × 530). The increased magnification reveals, as usual with all malignant cell elements, a greater multiplicity of nuclei than is visible with lower powers. It also proves that the seeming vacuoles are not really empty, but are filled with mucoid liquid, wherein commonly floats a remnant of the nucleus. *a* contains, besides the nuclei and vacuoles, a large number of dimly seen round corpuscular forms not stained by the dye. In *b* there is a large crenated nucleus.

FIG. 3.

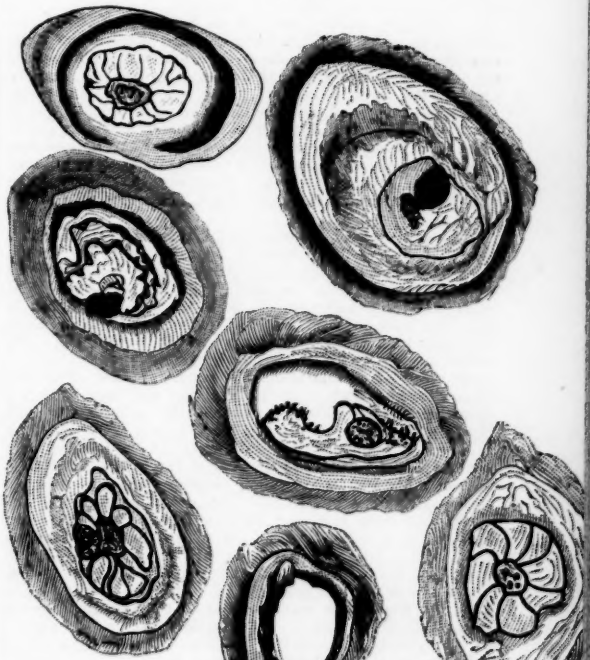


Fig. 3 shows the phenomena, some of them extremely suggestive of paorosperms, produced by protoplasm-contraction (the result of reagents) in cartilage corpuscles (× 240). It was intended further to have exhibited a slide with abundant "parasities," owning the like causation, from the salamander's testicle.

Gloucester-place, Portman-square.

CASE OF SPASMODIC TORTICOLLIS; SECTION OF SPINAL ACCESSORY NERVE; RECOVERY.

BY ALFRED G. FRANCIS, B.A. CANTAB., M.B., B.S. LOND., F.R.C.S. ENG.

A TROMBONE PLAYER aged twenty-nine, suffering from spasmodic wryneck, was placed under my care by Mr. A. Legge Roe in December, 1891. As to his family history, none was obtainable of insanity or epilepsy. The disease had been present for eight months; the spasms began first in the affected muscles and remained confined to them; at first they were slight in character and were only noticed when he was tired after a long evening's work as first trombone player at a music-hall; they gradually increased in frequency and severity to such an extent that he was obliged to discontinue his employment, and for the last two months he had been scarcely free from spasms, which occurred not only during the day, but at night also, frequently waking him up. He was under continuous treatment in the hands of several medical men for six months, but stated that he was steadily becoming worse; the remedies adopted included counter-irritants, galvanism, bromides, belladonna, Indian hemp, morphia, and atropine. There was no history or evidence of the disease originating in exposure to cold or injury, rheumatism, gout, syphilis, or malaria.

The patient was a highly nervous and excitable individual. For some weeks he had suffered from delusions to the effect that he was ill-used, laughed at, and followed in the streets by persons who mockingly called the attention of people passing by to his wryneck. There was no facial spasm or spasm of any other muscles than the right sterno-mastoid and right trapezius. These muscles were in a constant state of tonic spasm, which prevented the head from being placed straight, its usual position being inclined towards the right shoulder. Every few minutes they were affected by severe clonic spasms, by which the head was drawn strongly towards the right shoulder. There was severe cramp-like pain in the muscles during the clonic spasms, which occurred throughout the whole day and night and even during sleep. They were most severe and frequent when the patient was tired or excited, and were found to occur during the slighter stages of chloroform narcosis. There were almost complete anorexia and insomnia. The heart, lungs, and urine were natural.

Medical treatment in competent hands having been fairly, though unsuccessfully, tried, I suggested that he should submit to division of the spinal accessory nerve and obtained his ready assent. On Dec. 20th, 1891, I divided the right spinal accessory nerve at the point where it was about to enter the sterno-mastoid through a three-inch incision along the upper part of the anterior border of that muscle. The wound healed by first intention, the stitches and dressings being removed on the third day, and a flannel bandage was applied to the neck. During the first six days after the operation the patient was sensible and comfortable and completely free from the slightest spasm. On the 26th a slight twitching of the sterno-mastoid was noticed, but unattended by any pain; this lasted for a few hours. On this day his mental condition became worse, his manner was wild and excitable, the old delusions returned and fresh ones were noticed; he was possessed of the most extraordinary notions as to the intentions of his present and former medical attendants and armed himself with a carving knife for his protection, with which he walked about the house and garden; he was quite unmanageable and four days later was removed to the Borough Asylum in a maniacal condition. After a few days in the asylum he completely recovered. On Jan. 7th, 1892, a slight twitching of the right sterno-mastoid was noticed on making the patient look steadily at an object held above the level of his eyes. He complained that his neck felt stiff at the end of the day. The head could be placed quite straight, but there was some slight rigidity of the right sterno-mastoid. A few weeks later he returned to his work, and after a short time he noticed some return of the slight twitching in the right sterno-mastoid. He gave up the trombone-playing and went for a long holiday and completely recovered. In the autumn of 1892 he commenced work again, but in November the slight twitching returned; this time it soon disappeared on the administration of bromides. As there seemed to be some connexion between his employment and the recurrence of twitching, I suggested that he should learn to play an instrument which entailed the use of different muscles; he selected the bass viol, soon became proficient, and finally discontinued the trombone. From that date to the present time he has continued quite well, both as regards the wryneck and his mental aberration. There has been no appreciable wasting of either the trapezius or sterno-mastoid, and no sign of spasm in any other muscle.

Remarks.—The cause of the disease in this patient seems to be an unusual one, for the case may be looked upon as an instance of spasmodic wryneck due originally to over-use of certain muscles in an especially neurotic subject. The patient stated that when playing the trombone he was in the habit of inclining his head to the right shoulder and turning his face slightly to the opposite side—i.e., he adopted a position which would be brought about by the action of the affected muscles; the muscles would be naturally much fatigued by their continued use during several hours every evening. The first indications of the disease were noticed at night after his work at the music-hall was finished; after section of the nerve slight twitchings of the sterno-mastoid occurred on at least two occasions when he resumed his occupation after a holiday. When he finally discontinued trombone playing these twitchings completely ceased. Though probably thus originated the spasms finally became persistent and independent of his occupation, for he was obliged to give up his employment for some months before the operation, without, however, receiving any benefit from the rest. Similar instances of spasmodic wryneck following over-use of muscles have been recorded by Professor Annandale[1] and Dr. Poore.[2] These cases seem to be allied to some occupation neuroses, such as writer's cramp &c., the resemblance being very striking when the spasms begin in the hand and subsequently spread to the neck, as recorded by Dr. Gowers[3] and Dr. Russell Reynolds, and probably are closely related to habit-spasm, an instance of which affecting the sterno-mastoid is related by Dr. Gowers. Though there is frequently a family history of epilepsy, insanity, or spasmodic affections, and sometimes evidence of neurotic troubles preceding the onset of the disease in the patient himself, yet here nothing of the kind could be found, and the insanity was the sequel of the disease; it was much exaggerated temporarily by the operation, but, like the wryneck, was apparently cured by the neurotomy. Division or resection of a portion of the spinal accessory nerve seems to be very generally followed by ultimate cure of the disease[4]; but, as in this case, in some patients there is some temporary return of twitching. This may be due to the double nerve-supply of the sterno-mastoid and trapezius muscles enabling impulses from the irritable nerve centres to reach the muscles in spite of section of the spinal accessory nerve. In this case it may have been due to union of the cut ends—a view supported by the absence of atrophy of the muscles. If this be so, the curative action of the operation would depend on the enforced rest of the affected muscles, the central irritability subsiding when the habit had been broken. The recurrent spasms were very slight, clonic, and never painful, consisting merely of slight twitchings of the muscles, which were hardly strong enough to move the head.

Albion-street, Hull.

[1] THE LANCET, April 19th, 1879.
[2] THE LANCET, Oct. 11th, 1873.
[3] Dr. Gowers: Diseases of the Nervous System.
[4] Mr. Noble Smith (Spasmodic Wryneck, 1891) has collected a considerable number of cases demonstrating this fact.

NEW LUNATIC ASYLUM, SUNDERLAND. — The Mayor of Sunderland and the vice-chairman of the Asylum Committee performed on the 2nd inst., in the presence of a large assembly, the ceremony of laying the foundation-stone of a new asylum at Ryhope, Sunderland. The cost is estimated at upwards of £80,000, and accommodation will be provided for 300 patients.

PRESENTATION.—Dr. J. D. Adams and Mrs. Adams, of Martock, have been the recipients, on the occasion of their silver wedding, of a set of silver entrée dishes, bearing the following inscription:—"Presented to Dr. and Mrs. Dixon Adams in commemoration of their silver wedding, with the esteem and best wishes of their friends and neighbours." Dr. Adams has been a practitioner at Martock for a period covering thirty-five years.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF BROW PRESENTATION IN RICKETY PELVIS, CONJUGATE THREE AND A QUARTER INCHES; TURNING TWENTY-SEVEN HOURS AFTER RUPTURE OF MEMBRANES.

BY CHARLES S. PATTERSON, M.B. EDIN., M.R.C.S. ENG.

I WAS called on Sept. 2nd at 8.30 A.M. by Dr. W. J. Spettigue to see a multipara. This was her second labour. Her first was premature (seven and a half months) and the child was stillborn. On asking about the progress I was informed that the waters had come away at 5 A.M. on the preceding day. The high forceps had been applied, after digital dilatation of the os, at 11 P.M. and again at 6 A.M. but without any result. On examination, the os was found to be widely dilated, the promontory was very marked, and the occiput hitched against it, causing a brow presentation; the occiput lay to the right posteriorly. The patient had passed into a condition of powerless labour. Dr. Spettigue administered a little chloroform, and as the head had not properly engaged at the brim an endeavour was made to bring down the occiput by the use of the axis traction forceps and to press up the forehead and thus convert the case into a vertex right occipito-posterior one, but the endeavour was futile. Further measurement showed the conjugate to be only three and a quarter inches, and as the child was alive it was decided to endeavour to turn and deliver alive if possible, the only other alternative being craniotomy. Chloroform was then administered to the full surgical degree. The hand could not at first be passed owing to tonic spasm of the uterus, but as the patient became deeply anæsthetised this passed away, and a knee, the left, was seized and brought down. Version was easily effected. The patient was then allowed to come to, good strong pains came on at once, and the body of the fœtus passed slowly through aided by traction during the pains. The cord was pulled down a little and placed to the left side of the promontory; it pulsated freely and regularly until the head entered the brim and became arrested, when it at once stopped. Traction by the feet, and later by the feet and neck and lower jaw, was tried for some minutes, and just as perforation of the after-coming head was decided upon the head commenced to move and was extracted as quickly as possible. The child was completely asphyxiated and could not be made to respond to any of the means of resuscitation employed. As the uterus failed to contract upon the placenta, it was firmly grasped in the left hand, and one drachm of liquid extract of ergot was given. The placenta came away by expression in twenty minutes. A carbolic douche (1 in 40) was at once administered; this was ordered to be repeated twice a day. At 6 P.M. the temperature was 99·4° F. and the pulse was 96; at 10 A.M. the temperature was 98·8° and the pulse was 90. The temperature was never above 100° during the whole puerperium, which was indeed most uneventful.

The chief points of interest in the case are: 1. The ease with which the tonic contraction, or rather the tetanic condition of the uterus, was overcome by chloroform and turning accomplished twenty-seven hours after the escape of the amniotic fluid. 2. The child being alive (as proved by auscultation and pulsation of the cord) towards the end of such a prolonged second stage. 3. The possibility that the life of the child might have been saved if the cord had been placed to the right side of the promontory—i.e., the side unoccupied by the large occipital portion of the head of the fœtus, as the stoppage of the pulsation took place just as the base of the head was engaging the brim.[1] 4. The amount of pressure and manipulative interference that the soft parts of the mother tolerated without injury—viz., digital dilatation of the os followed by three distinct applications of the forceps, with strong prolonged traction on each occasion, and finally the great traction required to bring the head through the brim after the passage of the body. 5. Forceps were not applied to the after-coming head, as the pulsation of the cord had ceased and any pressure applied to the head antero-posteriorly would tend to increase the bi-temporal diameter and hence retard delivery. 6. The child was a large full-term male. Extensive bruising was seen on the right temple, evidently caused by the promontory of the sacrum, and a good deal of head moulding had taken place during the first stage before turning, as seen by the following diameters: mento-occipital diameter, 6½ in.; fronto-occipital diameter, 6½ in.; bi-temporal diameter, 3¼ in. The scalp was œdematous, with a well-marked caput succedaneum over the left frontal bone.

Highbury-place, N.

[1] Dr. Matthews Duncan held that this was due to asphyxia of the child and infarction of the air passages from detachment of placenta. Transactions of the Obstetrical Society, vol. xx., p. 63.

A CASE OF ASCITES; RECOVERY.

BY J. M. WALKER, M.B., C.M. EDIN.

EXTENSIVE accumulations of fluid within the peritoneal cavity so frequently resist the best directed efforts to promote their absorption and necessitate a recourse to paracentesis that a short account of the following case, in which complete recovery—as far as the dropsy was concerned—resulted from purely medical treatment, may prove to be interesting to the readers of THE LANCET.

A man aged forty-eight consulted me on Aug. 1st last in consequence of his abdomen having recently become enormously distended, and a very slight examination sufficed to prove that he was suffering from ascites, a history of many years' excessive indulgence in alcohol leaving little room for doubt that cirrhosis of the liver was the cause. There was no œdema of the legs or other part of the body. The urine, of which only three or four ounces were passed in the twenty-four hours, was loaded with lithates and contained some bile, but was free from albumen. The heart and lungs were healthy, and the abdominal girth measured forty-five inches. I prescribed a mixture containing acetate of potassium, spirit of nitrous ether, tincture of squills, tincture of digitalis, and decoction of scoparius, a considerable increase in the flow of urine (from which the lithates and bile disappeared by degrees) taking place in the course of a day or two. In addition to this the abdomen gradually became softer, and its girth was reduced to forty-three inches. The improvement, however, did not continue, notwithstanding that other diuretics and an electuary of compound jalap powder and confection of senna were subsequently tried. The patient strongly objected to paracentesis being performed, and I saw him on Aug. 29th in consultation with Sir James Sawyer, who prescribed the following: iodide of potassium, one scruple; muriated ammonia, four scruples; carbonate of ammonia, one scruple; bicarbonate of soda, one drachm; liquid extract of taraxacum, half an ounce; dill water to eight ounces. One ounce with half an ounce of lime-juice to be taken three times a day. The electuary to be continued. Within a week of commencing the above the amount of fluid had sensibly diminished, and by Sept. 27th it had completely disappeared, the abdominal girth measuring thirty-five inches. The patient, who had become greatly emaciated during the course of his illness, rapidly gained flesh and strength, and in a little more than two months from the date of my first seeing him was actively engaged in the pursuit of his business, and was able to walk several miles daily. The case is an instructive one as showing what may be accomplished by persevering with suitable remedies and the advantage to be gained by varying the latter should one class fail to bring about the desired result. Attention also may be drawn to the value of chloride of ammonium in such cases, which drug Dr. Murchison[1] speaks of as holding a "pre-eminent place" in the treatment of hepatic derangements and as "exercising a powerful influence in relieving the portal circulation."

Belgrave-road, Birmingham.

[1] Lectures on Diseases of the Liver.

LEAD POISONING FROM TEA.

BY J. P. WILLIAMS-FREEMAN, M.D. DURH., D.P.H.

BETWEEN the months of October and March last winter five cases of undoubted lead poisoning amongst cottagers came under my notice, besides about half a dozen cases in

which there were obscure abdominal pains and constipation where no lead line was detected, either because the teeth were absent or because it was not looked for. I was quite unable to find the source of the intoxication in the three instances in which I carefully looked for it. In one case I had the tea examined, but with a negative result. During this autumn I have seen nine cases in which the patients had a well-marked blue line, as well as several others in which there were abdominal pains and constipation. Having practically excluded every other probable source, I again submitted samples of tea to Mr. Arthur Angell, Ph.D., F.I.C., of the County Laboratory, Southampton, and he reports as follows:—

No. 1.—Loose tea as supplied to four of my patients. (This, the village shopman assured me, he received from London in large paper bags, with no lead paper.) "In this sample lead was distinctly present."

No. 2.—A quarter of a pound packet in thick lead paper. "In this sample distinct traces of lead were found."

No. 3.—A quarter of a pound packet not in a lead package. "Here the faintest possible reaction for lead was found."

No. 4.—A quarter of a pound packet in lead paper. "In this sample a larger quantity of lead was found than in any of the other samples."

Nos. 1, 2, and 3 were bought by me at a village shop. No. 4 was taken from a patient's house.

The symptoms have in all the cases been abdominal, with marked pallor, and the addition of severe facial neuralgia in one case, pains in the limbs in another, and gout in a third. There has been vomiting in two or three cases and diarrhœa (possibly, however, due to pills, of which the cottagers partake so freely) in one or two. One patient had a serious relapse after about a fortnight, but he may, of course, have reintoxicated himself. I have seen no wrist-drop or eye symptoms. In three instances both parents have been affected at the same time, and in no case have there been any symptoms in children. They, however, usually have weak tea in small quantities. I have full notes of the quantities drunk in two or three cases, which may be of interest when I receive the quantitative analysis from Mr. Angell, who is fully investigating this matter; but I hasten to send his preliminary report.

Weyhill, Andover.

BENZOLE IN INFLUENZA.

BY WILLIAM ROBERTSON, M.D. GLASG.,
SURGEON TO THE THROAT AND EAR HOSPITAL, NEWCASTLE-ON-TYNE.

THE majority of the cases of influenza I have met with lately I have treated with benzole, and with the best results. I have already in the columns of THE LANCET referred to the several ways in which the drug can be administered. In every case the drug has been well tolerated. The cases treated have all shown the usual symptoms met with in influenza—viz., rapid onset of attack, temperature ranging from 101° to 103° F., quick pulse, shivering, pain in the head and down the back, dull-red injection of fauces, &c. The drug was administered in the form of an emulsion in lemonade, five minims to be taken every two hours and a half. As a rule, in about two hours after the first dose the general discomfort had disappeared, and within the first twenty-four hours the temperature was observed to be normal. Rarely, indeed, was any further pyrexia to be noticed. Convalescence was usually rapid, with very little of the debility so noticeable when routine treatment was employed. As a check experiment, and when two patients were observed in one house, one would be placed upon benzole and the other on, for example, liquor ammoniæ acetatis, &c. As a rule the next morning the patient taking benzole would be found to be free from fever, with the pulse normal, &c.; while the other would still be feverish and in general discomfort. The patients usually showed no very severe pulmonary symptoms, but a few had a temperature of between 103° and 104°, and in each case within twenty-four hours the temperature was normal. This result was met with in influenza, and the equally good results of its action in whooping-cough determine the value of benzole as a pulmonary antiseptic.

Osborne-road, Newcastle-on-Tyne.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

A CASE OF CARDIAC FAILURE DURING THE ADMINISTRATION OF ETHER.

(Under the care of Mr. DAVIES-COLLEY.)

THE following account of the occurrence of serious syncope during the administration of ether will be read with considerable attention, for the profession is not accustomed to regard such a complication as at all likely to occur during inhalation of this drug; in fact, many surgeons prefer ether to chloroform for anæsthetic purposes, because of the absence of liability to accidents of this kind. We shall be pleased to receive communications on this subject from those who may have had similar experiences. For the following report we are indebted to Mr. T. D. Lister, house surgeon, and for the remarks to Dr. Silk, assistant anæsthetist.

A labourer forty-eight years of age, not bronchitic and with no signs of organic disease or alcoholic degeneration, was admitted to the accident ward of Guy's Hospital on the morning of Oct. 14th suffering from a severe compound fracture of the left leg. There were two wounds, the larger, on the front of the leg, having the upper fragment of the tibia projecting over the skin at the lower end of the wound. As this was irreducible by extension without an anæsthetic it was resolved to administer ether, and the anæsthesia was maintained during an incision of the skin to enable reduction to take place, cleansing, and final setting of the limb in a Croft's splint. Clover's apparatus was used, two ounces of ether being put into the previously empty container. The patient took the anæsthetic well, and the stage of excitement was very brief. The container was gradually moved round until the indicator pointed to "3" and full anæsthesia was induced in rather less than four minutes. The head was then turned to the right to facilitate the removal, from time to time, of the small quantity of mucus that formed. This was, if anything, less than usual. The indicator was gradually brought back nearly to "1," and, to ensure a further diminution in the strength of the vapour, two or three aerial respirations were alternated with every eight or nine taken through the inhaler. At the end of half an hour slight signs of returning consciousness, of which the patient afterwards had no knowledge, made it necessary to replenish the inhaler. The small quantity of aqueous ethereal fluid in the container was poured out, and two ounces of fresh ether were added. Full anæsthesia was again induced, during which process the breathing became noisy for a few minutes, and the indicator was again gradually brought back to the "1" mark. The anæsthetic condition then appeared to be quite normal. At the end of a second half hour, when the process of setting the limb was nearly completed, suddenly and without warning or apparent cause, and while in a condition of complete anæsthesia, the patient became intensely pale, his lips blue, and his respirations rapidly failed. The pupils remained contracted; there was no retching. The fauces and upper aperture of the larynx were clear. The cardiac apex beat could not be felt, and no arterial pulse could be detected anywhere. The foot of the bed was raised about two feet, and artificial respiration slowly and deeply performed, air entering quietly and without difficulty. After twelve or thirteen movements, occupying nearly a minute, one small, very short inspiratory gasp occurred automatically. Soon afterwards the apex beat became again feebly palpable, and artificial respiration being continued for a further nine or ten movements, another short inspiration took place, and was followed by very small but gradually increasing respirations, expiration being then assisted by pressure on the thoracic wall. There was no vomiting at any time. The

patient recovered consciousness, then slept deeply for six or seven hours, and has done well since.

Remarks by Dr. SILK.—The above case presents features of remarkable interest; but it is extremely difficult for any but those present at the administration to attempt to account for the phenomena observed. On reading the case over the following points have struck me:—1. The ease with which the anæsthesia was induced. The patient was in just that class of life and of just the age when a good deal of excitement and struggling was to be anticipated, especially as he had received no previous preparation by residence in the hospital. I can only conclude, therefore, that the shock consequent upon the injury was very severe. 2. The very small quantity of ether employed. The ether used was that usually employed in the hospital. The patient was under the anæsthetic for nearly an hour and only four ounces of ether were used. The average quantity for this length of time is at least six ounces, and with a patient of this class one would rather expect the average to be a good deal exceeded. 3. The sudden onset of the dangerous symptoms. This is suggestive of cardiac rather than primary respiratory failure; but against this view we must place the contracted pupils, though it is quite possible that in this case a momentary dilatation was overlooked. 4. Taking the case as it stands, I should ascribe much of the syncopal condition to the shock of the injury and operation, and should be inclined to say that if it had not been for the stimulation of the ether this syncope would have occurred at an earlier stage, and would not have been delayed until the stimulating effect of the ether had worn off. Mr Lister is, I think, to be congratulated upon the success which attended his prompt treatment of a condition which might have ended in disaster. As a general rule, only fatal cases of anæsthetisation are recorded; but to my mind the much more frequent "dangerous cases" are more instructive.

NEWCASTLE-ON-TYNE INFIRMARY.

FOUR CONSECUTIVE CASES OF NEPHRECTOMY, ONE OF WHICH WAS COMPLICATED BY OVARIOTOMY.

(Under the care of Mr. PAGE.)

WE give below a series of cases illustrative of some of the surgical diseases of the kidney which required the removal of that organ. In Cases 1, 2, and 3 the kidney was dilated and the ureter apparently blocked. The cause of the obstruction to the ureter is not apparent, for nothing was found at the operation to account for it; and in Case 3, the fatal one, there is no record of a post-mortem examination. With regard to the Case 4, in which there was a sarcoma of the kidney, it is yet too early to give a prognosis. The extremely gloomy view which was held about the result of operation in these cases a short time ago has undergone some modification recently. Dr. Barth of Marburg has made a collection of 100 cases of nephrotomy for malignant disease. Of these cases, 42 died from the operation, 20 from metastasis or intercurrent troubles, 1 from intestinal cancerous infiltration three years later, and 37 were reported as cured. In the case of children, however, there is a question whether sufficient respite is obtained to warrant the operation of removal.[1] We are indebted for the notes of the following cases to Mr. Bishop, house surgeon.

CASE 1.—A woman forty-two years of age was admitted to the Newcastle-on-Tyne Infirmary with the following history. Sixteen years ago she was seized suddenly with severe pain in the right lumbar region, which shot down the right leg and also across the abdomen. The pain "doubled her up," she vomited, and had cold sweats. She noticed that she passed no urine during the attack. After about three hours she "got ease all of a sudden," and perspired freely. In the following twenty-four hours she passed more urine than usual, and it deposited a sediment on standing. She never noticed any blood. Since then she had had many attacks of the same character at intervals varying from one week to three years, but for the last three months she had not passed a fortnight without an attack. During the time the patient was under observation in the infirmary she did not have an acute attack, but suffered from a constant aching pain in the right lumbar region. On two occasions it became severe enough to confine her to bed, and on each of these the quantity of urine diminished to seventeen ounces for the twenty-four hours. There was general tenderness over the right lumbar region with an acutely tender spot just below the last rib and about three inches anterior to the erector spinæ muscle. The specific gravity of the urine varied from 1009 to 1014, the reaction being always alkaline. It contained no albumen, blood, sugar, or casts, but a large quantity of phosphates was present. The amount varied from seventeen ounces to fifty ounces per diem. On May 6th the right kidney was exposed by an oblique lumbar incision. It was found easily owing to the indifferent muscular development. A large cyst occupied its lower border, and on puncture with a fine needle a quantity of urine escaped. The pelvis was much dilated, and the finger, on opening it, could be passed down the ureter as far as it could reach. A long probe was introduced, but would not pass as far as the bladder. No stone could be found. The ureter being blocked and the kidney waterlogged, the latter was removed, the vessels being clamped while the pedicle was first cut across and then ligatured. The open end of the ureter was sewn to the skin, and the wound was drained and closed in the usual way. The patient suffered very little inconvenience from the operation beyond some pain the first night. The wound healed rapidly and she left the hospital on May 29th. The urea excreted during the first twenty-four hours after operation was 227 grains, and 493 grains during the following twenty-four. When last seen she was in perfect health and had had no further symptoms. No sinus remained.

CASE 2.—A woman fifty-two years of age was admitted to the Newcastle-on-Tyne Infirmary complaining of a tumour in the abdomen. Five or six years ago the patient had a severe attack of vomiting, which lasted for four days and was succeeded by a pain in the left iliac region. On examining the part the patient discovered a swelling there; it increased in size slowly until it was "as large as a baby's head," while the pain continued to be more or less constant. At intervals of a few weeks the pain became very acute and she had severe vomiting, these attacks lasting for from one to three days. Two years and a half ago she was an in-patient under Dr. Limont, and the tumour was tapped by Mr. Page, with the result that it quite disappeared. It commenced to return, however, and the pain, which had also been relieved, returned with it, and has continued to be more or less constant ever since. The patient had never suffered from any urinary trouble prior to this. She had suffered severely from influenza, but had been otherwise quite healthy. There was a tumour as large as the patient's head situated nearly in the middle line of the abdomen, but slightly more to the left side than the right. It was freely movable, was apparently connected with the left lumbar region, and was quite unconnected with the pelvis. It was slightly tender. On May 16th the abdomen was opened in the middle line and the tumour tapped, a large quantity of pale straw-coloured fluid, which was afterwards found to contain urea, being drawn off. The peritoneal covering and the capsule were then incised and gradually stripped off from the kidney itself. The kidney was removed. The capsule was sewn to the skin of the abdominal wound and a glass drainage-tube inserted in it. The wound was then closed in the usual way and an antiseptic dressing applied. The patient suffered somewhat from shock, but rallied and went on well until the following day, when hæmorrhage occurred. The tube was therefore removed and the cavity carefully packed with strips of gauze. This, however, only arrested it for a short time, and blood soon again began to soak through the dressings. As the patient was now beginning to develop symptoms of severe blood loss, it was decided to open up the wound and search for a bleeding vessel. This was accordingly done, chloroform being administered, but only two or three oozing points could be detected and these having been secured the cavity was carefully packed and the wound closed. Unfortunately, the patient failed to rally from the shock of the second operation and died one hour after it was completed.

CASE 3.—A woman thirty-five years of age was admitted to the Newcastle-on-Tyne Infirmary complaining of acute pain in the back and right side, which came on at intervals. Twelve years ago, three days after convalescence from her second confinement, she was seized with severe pain in the right lumbar region, lasting for twenty-four hours. For seven or eight months she had a similar attack every week "regularly." Subsequently she only suffered about once in every six or seven weeks; but she had had three attacks in the last two months, the last two occurring within the week previous to her admission. The following were the characteristics of the attacks.

[1] Sajous' Annual of the Medical Sciences, vol. iii., 1893, E. 26.

They came on suddenly with acute pain in the right lumbar region, which gradually worked round to the front and lasted for from twenty-four hours to three days—usually the former. The pain subsided generally, and the patient usually fell asleep before it was quite gone and woke up free from pain, but so weak that she "could scarcely walk." The pain was nearly always accompanied by severe vomiting lasting for some hours; if she did not actually vomit she felt "deadly sick." She was "doubled up" while the pain was at its height and had cold sweats. For about two days before an attack she passed less urine than usual and "swelled up in the bowels," and after the pain had subsided she passed a large quantity of urine and the swelling disappeared. The urine passed after an attack was "very red," but between the attacks it was quite normal. Between the attacks the patient suffered from a constant aching pain in the right lumbar region. It was increased by exertion and relieved by lying down. There was tenderness in this region. There was an ill-defined swelling in the right side, dull on percussion (the dulness being continuous with that of the liver), tender to the touch, and about the size of two closed fists. It disappeared after an attack of pain. On May 13th the kidney was exposed by a transverse lumbar incision. It was much dilated and was easily separated from its capsule. The pelvis and ureter were enormously dilated, but no stone could be found either in them or in the kidney itself after a most careful examination. A probe, however, could not be passed down the ureter into the bladder. The kidney was removed in the usual way, the dilated ureter being sewn to the skin. The patient made an uninterrupted recovery. She has slight pain in the region of the kidney at times, and there is still a sinus where the ureter was sewn to the skin.

CASE 4.—A woman forty-seven years of age was admitted to the Newcastle-on-Tyne Infirmary with a tumour in the abdomen, which she wished to have removed. The history showed that she first noticed a swelling in her abdomen one month ago. It was then about the size of an orange and was on the left side. It had steadily increased in size since that time, but had caused her no pain or other inconvenience except a slight difficulty in walking. The patient thought that she was losing flesh. On examination of the abdomen its walls were seen to be very thin. The colon was distinctly visible through them. There was a hard irregular mass about the size of a cocoanut lying on the left side of the abdomen, reaching a little below and to the right of the umbilicus. It was freely movable, had no connexion with the pelvis, but could be felt to extend towards the left loin. On vaginal examination a smooth globular swelling could be made out in the left lateral fornix, but this had apparently no connexion with the tumour felt through the abdominal walls. The patient was quite free from symptoms and all the secretions were normal. On Aug. 8th the abdomen was opened in the middle line between the umbilicus and the pubes. The left ovary was found to be enlarged to the size of a small cocoanut and cystic, and it was removed. The right ovary was quite healthy. The incision was then enlarged upwards above the umbilicus, and the renal tumour was thoroughly explored. As it was found difficult to get it sufficiently exposed to remove it easily through this incision, a transverse cut was made at right angles to the first and joining it about its centre, extending as far as the loin. The capsule was opened and the kidney carefully separated from it—a work of some difficulty owing to the large veins, some of which were as thick as a thumb, which it contained. The ureter was secured with a pair of Spencer Wells' forceps, and the vessels were ligatured with stout silk as soon as they were exposed. The whole mass was then removed. Some bleeding points were secured and the whole cavity was packed with iodoform gauze, the end of which was brought out through a counter-incision in the loin. The end of the ureter was also brought out through this incision and sewn to the skin. The wound in the capsule was now carefully sutured over the gauze, thus shutting off completely the abdominal cavity. The abdominal wounds were sutured with silkworm gut and an antiseptic dressing applied. The patient rallied from the operation, and, with the exception of some pain for the first twenty-four hours, had no symptoms whatever. The gauze packing was removed forty-eight hours after the operation with little difficulty and no hæmorrhage. On Aug. 19th the abdominal wounds were dressed for the first time and the sutures removed. Both the abdominal and lumbar wounds were quite healed. On Aug. 22nd the temperature rose for the first time to 101·4° F. and the following evening to 101·8°. A pair of sinus forceps were introduced through the lumbar cicatrix into the capsule, and a considerable quantity of clear serous fluid escaped. A drainage-tube was inserted and left for a few days until the discharge ceased. It never became purulent. The temperature fell to normal immediately after the evacuation of the fluid. The patient left the hospital on Sept. 2nd in good health.

Remarks by Mr. FREDERICK PAGE.—These cases call for little comment. The patient in the case which had a fatal termination should not have died. She was a worn woman. The loss of blood was not great, and I believe if the cavity had been stuffed and drained through a counter opening in the loin it would not have occurred. The last case is particularly interesting, for the tumour of the kidney was large, a sarcoma involving the lower half of the organ, and there were no kidney symptoms. The ovarian cyst, on the same side, was sufficiently firmly jammed in the pelvis to cause considerable tympanites, and led to some doubt as to the nature of the swelling in the loin, which I believed to be an enlarged kidney. The patient continues to be quite well.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Bullet Wound of Heart.—Wound of Carotid Artery.—New Phase of Coccidium Oviforme.—Intussusception.—Angeioma of Left Scapular Region.—Syphilitic Disease of Tibia.—Lymphadenomatous Growths involving the Heart.—Crystals of Bilirubin from a Hydatid Cyst.

AN ordinary meeting of this Society was held on Nov. 7th, the President, Dr. PAVY, being in the chair.

Mr. BERRY showed a specimen of Bullet Wound of the Heart from a man aged twenty-three years who was admitted into St. Bartholomew's Hospital under the care of Mr. Thomas Smith; he had committed suicide by shooting himself with a revolver. The bullet, which was a conical one $\frac{7}{16}$ in. long and $\frac{4}{16}$ in. wide, had passed through the fourth left costal cartilage, penetrated the left pleura, then passed right through the cavity of the right ventricle, and through the inter-ventricular septum, emerging at the auriculo-ventricular groove close to the inferior vena cava; it then entered the right pleura, struck the eleventh right rib near its angle, and fell back into the pleural cavity. The man survived exactly one hour; twenty minutes before he died he threw his limbs about with considerable force and shouted loudly. At the necropsy about two ounces of blood were found in the pericardium, three pints in the right pleural cavity, and one pint in the left. A point of medico-legal interest in the case lay in the fact that the course of the bullet had been from left to right through the chest, although the patient was not a left-handed man.

Mr. BERRY also showed a specimen of Incised Wound of the Left Common Carotid Artery taken from the body of a man aged fifty-four years, who was admitted into the Royal Free Hospital under his care, having been stabbed in the neck with a pocket-knife. The knife had entered the posterior triangle of the neck on the left side just above the clavicle; it passed through the left innominate vein and nearly divided the carotid artery half an inch above the aorta. A flap of artery three-quarters of an inch long, and involving three-quarters of the circumference of the artery, had been turned upwards and backwards. There was profuse venous hæmorrhage from the wound, but hardly any arterial hæmorrhage; the blood from the artery, being prevented from making its way externally, apparently owing to the valve-like action of the flap, passed into the mediastinum, and caused death by pressing upon the heart. The patient survived for four hours.

Mr. JACKSON CLARKE showed a specimen illustrating a Phase of Coccidium Oviforme as described by him in the *Medical Press* of Aug 30th last. Having quoted L. Pfeiffer and Laveran to the effect that cultures in the bacteriological sense did not exist for the sporozoa, which were necessary parasites, Mr. Clarke insisted on the importance of careful histological examination as being the chief means of extending our knowledge of this class of animals. At the present time only two modes of reproduction were recognised in coccidium oviforme—namely, that first described by Leuckart, occurring only outside the body of the host, and that quite lately described by R. Pfeiffer, the formation of sickle-shaped

swarm-spores. The latter process, as far as was at present known, only took place in the acute coccidial affection as it occurred in young rabbits. In the lesions of the liver of a full-grown rabbit Mr. Clarke had found a modification of the parasites marked by the absence of a thick capsule and the presence of short parallel rods of chromatin placed vertically to the surface. The parasites in this phase presented unequivocal evidence of undergoing subdivision, which resulted in the formation of clusters of minute cells, which sometimes retained the peripheral rays (so recalling certain cell-inclusions in cancer), and sometimes assumed the form of granular spheres about the size of red blood-corpuscles. The cell-clusters were quite distinct from the aggregations of granular coccidia. The phase might be regarded either as an abortive process, which went a certain way towards, but stopped short of, the formation of sickles (which were nowhere present in this case), or as a reproductive process resulting in the formation of round granular swarm-spores. In the latter case the result of the subdivision would be homologous with the swarm-spores which Mr. Clarke had observed in the psorosperms of the ureter and in the parasites of cancer.—Mr. SPENCER moved that the specimen be referred to the Morbid Growths Committee. It was difficult to distinguish the cells shown from liver cells which had undergone degenerative changes in association with coccidial disease.—Mr. SHATTOCK seconded the motion, which was carried. He said that it was important to know if these bodies had any connexion with the psorosperms obviously present.

Dr. CHARLEWOOD TURNER showed two specimens of Intussusception, one ileo-cæcal, the other ileo-colic. Both occurred in male infants within a period of three weeks, and both were admitted to hospital in a state of collapse on the third day of illness and died shortly afterwards. In the former case the invagination extended downwards nearly to the sigmoid flexure, and formed a tumour on the right side of the abdomen, which was felt in that situation during life, instead of being on the left side, as was stated to be the case under such circumstances. The other specimen showed a slight degree of prolapse of the mucous membrane of the ileum through the ileo-cæcal valve. An ileo-cæcal invagination was also found at the necropsy, but it was of small extent and was readily reduced. The intussusception in this case was not discoverable by palpation, but was diagnosed from the symptoms. In both cases the condition of the patients precluded operative interference.

Mr. F. C. WALLIS showed a specimen of Angeioma of the Left Scapular Region which had been removed from a healthy man aged forty-four years, having been noticed for four and a half months. It had increased very much in size since first noticed, and before removal it measured eight inches by five and a half inches; after removal it collapsed considerably. The swelling had all the clinical features of a rapidly growing sarcoma. A section under the microscope showed blood-vessels in fibrous tissue and invading muscular tissue, a few fibres of which could be seen. A certain amount of fat was also seen, but nothing to show that the growth was sarcomatous or other than a simple angeioma.—Mr. BOWLBY remarked that angeiomata of the deeper structures had not been sufficiently studied. There were two specimens of deep angeiomata in St. Bartholomew's Hospital Museum, one of the muscles of the ball of the thumb, and a second of diffuse nævoid growth of the popliteal space, which involved the muscles of the thigh and leg and the nerve trunks also, necessitating removal of the limb. In the specimen shown the growth was seen to be largely composed of arterial vessels.—Mr. LEONARD BIDWELL inquired whether there was any history of injury, as he had recently operated on a case of deep nævus of the thumb, in which there was evidence of previous traumatism. He had likewise met with a case of angeioma of the muscles of the front of the thigh.—Mr. WALLIS replied that there was no history of traumatism.

Mr. CLUTTON showed a specimen of Chronic Osteitis of the Bones of the Leg which he had removed by amputation. Both bones were much enlarged and were covered with stalactite outgrowths, which in the neighbourhood of the interosseous membrane united them together. Though increased in size, the bones were remarkably light, this being apparently due to a secondary atrophy. In many places the wall of the tibia was formed only by the thinnest layer of compact tissue. Both bones were curved, so that the foot could not be placed flat upon the ground. The specimen was removed from a man thirty-five years of age, who had had "bad" legs as long as he could remember. He had the marks of old interstitial keratitis. Both tibiæ were abnormally long and large from chronic osteitis, which was probably due to heredity. Photographs of the patient were shown.—Mr. SHATTOCK regarded the atrophy as secondary and due to disuse following the chronic osteitis, which had caused increased bone production. Increase in length of the long bones occurred in the adult as the result of osteitis deformans long after the natural physiological process of growth had ceased.—Mr. BOWLBY said that in a case he had recently shown of syphilitic disease of the knee-joints the tibiæ were greatly thickened, but the new bone was not hard. He had recently met with a case of elongated radius in osteitis deformans.—Mr. CLUTTON, in reply, said that the man had continued to walk until six months ago, and therefore he did not regard it as a case of atrophy from disuse. There was no evidence of acquired syphilis or of the excessive use of mercury.

Mr. C. BEADLES showed a specimen of Lymphadenomatous Growths involving the Heart. The specimen was obtained from a man aged forty years who died in Colney Hatch Asylum. For two years he had had enlarged glands in the neck, and for six months dyspnœa had been present. At the necropsy a large growth was found in the mediastinum pressing on the trachea and invading both lungs. The mediastinal growth did not penetrate the pericardium, and the growths in the heart wall appeared to be secondary.

Dr. LEE DICKINSON showed some Crystals of Bilirubin, which were obtained from a hydatid cyst of the liver into which there had been extravasation of bile. References were made to previous cases of a similar nature. The crystals were similar to those described by Professor Virchow as hæmatoidin. At the present day the identity of hæmatoidin and bilirubin was generally recognised, and the chief question raised by the presence of such crystals in hydatids was whether they had resulted from old extravasation of blood or of bile. They were probably of biliary origin, because (1) they had been seldom, if ever, found in hydatid cysts other than hepatic; (2) the cysts in which they had been found were generally dead, the entrance of bile being injurious to the parasite; and (3) bile-ducts and not bloodvessels were prone to be opened by hepatic hydatid cysts.

The following card specimens were shown:—

Dr. L. DICKINSON: Kidney partly Hydronephrotic, with Double Ureters.

Dr. VOELCKER: (1) Pharynx with Billiard-ball which had been swallowed; and (2) Primary Scirrhus of Liver.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Alopecia Areata.

AT the meeting on Nov. 3rd, the President, Dr. DONALD HOOD being in the chair, Dr. PHINEAS ABRAHAM read a paper on Alopecia Areata and showed specimens of the disease. He considered that more than one disease might have alopecia areata as a prominent symptom, although clinically and pathologically apparently similar. He dwelt upon the two chief theories, the neurotic and the parasitic. He had carefully investigated 137 cases since Mr. Hutchinson and Dr. Crocker had drawn attention to their theory relative to the connexion between alopecia and ringworm two years ago; 31 per cent. of his cases showed this connexion, but in none had he succeeded in demonstrating the fungus. In 5 per cent. there was alopecia in friends or relatives. Alluding to the question of contagion he quoted instances of outbreaks in institutions and barracks and mentioned one from personal experience, eighteen out of twenty-two boys in an orphanage contracting the disease, two of them showing ringworm. He spoke of ringworm as an occasional precursor of the disease.—Dr. COLMAN read a paper on Night Terrors. He referred to the frequent association of night terrors and epilepsy, but he regarded the affections as distinct and did not regard epilepsy as likely to follow night terrors. Its almost invariable association with disturbance of the alimentary canal was insisted on. Several cases were quoted, especially those where hallucinations were present even after the attack, when the child recognised its parents, and they had this peculiarity—that the whole figure of the man or other object of terror was rarely seen.—Dr. SCHACHT showed a case illustrating one of the Dangers of Tents. The specimen was removed from a woman who died from septicæmia caused by a slough separating and establishing a sinus into the broad ligament.—Dr. CLEMOW showed a case of Tapeworm for Dr. CAMPBELL POPE.

PROVINCIAL MEDICAL SOCIETIES.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.—A meeting of this Society was held on Nov. 2nd, Dr. EWART, President, in the chair.—Dr. W. TURNER showed a girl aged six years on whom he had performed excision of the hip-joint by an anterior incision; quick recovery ensued.—Dr. A. J. RICHARDSON showed a woman aged thirty-two years suffering from Jacksonian Epilepsy. She miscarried eleven years ago, became very hoarse two years ago, and had a rash over her body last year. For eight months she had a fit about once a month, then every day, and latterly three or four daily. The fits were always preceded by a burning sensation on the left side of the tongue, the left side of the face, or in the left fingers. After an appreciable interval the left side of the face was drawn to the left, the left fingers closed, and the arm was flexed. Sometimes unconsciousness, with the usual epileptic manifestations, followed, and sometimes it did not. The left hand was much weaker than the right (20 as compared to 75 on the dynamometer) and the surface temperature was lower (92·8° and 93·8° F.). Both hands perspired very freely, the left the more. The deep reflexes were exaggerated, but there was no clonus. There was marked papillitis in the left eye, slight in the right. The patient was very hoarse, the vocal cords not approximating. Rapid recovery under iodide of potassium took place; the aura still occurred, but no fit followed.—Dr. NEWSHOLME sent the Heart of a Cow, in which a piece of steel wire, swallowed probably with hay, had perforated the pericardium and caused purulent pericarditis.—Dr. CHEPMELL showed a preparation in which the testis had been removed on account of an immense hæmatocele.—Dr. CHAFFEY exhibited a series of microscopic specimens to illustrate the pathology of Diphtherial Paralysis. On exposing the cord and its membranes the latter were found to be distended, and there was clear cerebro-spinal fluid in the cauda equina. The cord itself felt firm and in section showed congestion of the grey matter. The chief changes to be seen microscopically were: 1. Distension of the bloodvessels of the grey matter, especially of the central parts and the anterior cornua. 2. Rarefaction of grey matter in many parts, especially those posterior and adjacent to the central canal, the epithelium of which appeared to be proliferating. The motor cells of the anterior cornua were large, pale, ill-defined, and tending to a globular shape, while in other parts they were granular and shrunken. Their processes were either granular and ill-defined or had totally disappeared. The cells did not take the logwood stain well. 3. The bloodvessels, as they entered or emerged from the grey matter of the anterior cornua and commissure, were surrounded by a hyaline or slightly granular material, enclosing a few leucocytes. The material was undoubtedly situated in the lymphatic sheath, and could be nothing but lymph. Plugging of the perivascular lymphatic sheath was an important factor. The rarefaction of the grey matter and the degenerative changes in the motor cells might be explained in part at least on this basis. It was, too, consistent with the general course and symptoms of the disease as observed clinically, and the known hyperinotic state of the blood might well have extended to the contents of the lymphatics and consequently have led to the formation of lymph coagula. These changes were most marked in the cervical region; consequently the origin of the phrenic nerve was often involved. Impaired sensibility was often present and might be due to lymph pressure constricting the sensory nerves at their points of emergence from the cord and thus impairing their conductivity.—Dr. WITHERS MOORE read a paper entitled "A Few Remarks on a Few Points of Medical Ethics, including a word or two about Professional Remuneration." A medical man's duty was threefold—towards (1) his patients, (2) the profession, and (3) himself. The first and chief duty was towards the patient. Everyone should contribute his quota to the great storehouse of medical knowledge from which he had received so much. For the sick poor three forms of assistance should be provided—(1) State aid, which should be more ample than at present, and should carry no stigma of pauperism; (2) provident dispensaries, upon the staff of which any registered practitioner should be allowed to place himself; and (3) free hospitals, where the out-patient difficulty could be met by each patient being compelled to bring a letter of recommendation from a practitioner or minister of religion, stating the difficulties or duration of the case. The leading consultants should raise their fee to five guineas, which would enable them to do more justice to their patients, to their younger brethren, and to the advancement of the science and practice of their noble profession.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.—The opening meeting of the seventy-third session of this Society was held on Wednesday, Nov. 1st. The Society meets in the rooms of the Royal Scottish Society of Arts, 117, George-street, which are the rooms it occupied for many years until a few years ago, when a change was made to the hall of the Association for the University Education of Women. During last winter the Society met in the Lyric Club Rooms, which, however, were too noisy and too faulty acoustically to be continued as the place of meeting. Dr. JOSEPH BELL, President, occupied the chair, and there was a large attendance. The first part of the meeting was devoted to an exhibition of patients.—Mr. COTTERILL showed a patient on whom he had operated for great deformity, the result of genu valgum. The operation had been very successful, the man's legs being quite straight, while he was able to walk many miles without fatigue.—Mr. CAIRD showed two patients in whom he had Amputated the Leg after the osteo-plastic method of Bier. He considered that the stump obtained by this method was extremely good, so that an artificial limb could be used with ease and comfort at an early period.—Dr. WALLACE showed a patient on whom he had successfully performed œsophagotomy and gastrotomy for the removal of a plate with artificial teeth which had been accidentally swallowed. The plate held five teeth, and was very irregular in shape.—Professor GRAINGER STEWART showed an interesting case of Nervous Disease with curious and unusual symptoms. The patient was a man who referred sensations to the opposite side of his limbs to that on which they were received; when touched on the outer side he referred it to the inner side and *vice versâ*. The gait was a zigzag one, with a regular triple rhythm, and there was continuous movement in both feet like ankle clonus. The case was regarded as a functional one.—Dr. JAMES showed an adult case of Friedreich's Ataxia in which the symptoms were well marked.—The PRESIDENT then delivered his valedictory address. He sketched the work the Society had done during the two years he had occupied the presidential chair, referring more especially to discussions on special subjects, such as abdominal surgery and myxœdema, which had much enriched the Transactions. He spoke also of the efforts that had been made to obtain permanent accommodation for the Medico-Chirurgical and other Societies, and he hoped that the day would come when the societies would have a place which would constitute an academy of medicine and science. He compared the record of work with that recorded by his father when he vacated the presidential chair of that Society thirty years ago.—On the motion of Mr. JOHN SMITH, the retiring President was heartily accorded the best thanks of the Society for his conduct as president and for his valedictory address. The officers for the session are: Dr. Clouston, President; Drs. Muirhead, Blair Cunynghame, and John Wyllie, vice-presidents; Dr. McKenzie Johnston (re-elected), treasurer; Dr. William Russell and Dr. Hodsdon, honorary secretaries; and Dr. W. Craig, editor of the Transactions. The new members of the council are Drs. James, Melville Dunlop, R. W. Philip, Joseph Bell, and Russell Wood.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—A meeting of this Society was held on Nov. 1st, when Dr. WALTER HUNTER, President, read a paper entitled "The Comfort of the Patient; Practical Hints thereon." He said that he had been induced to bring this subject before the Society because he felt that there were many important practical points in relation to it on which insufficient stress was laid. He took as a text, "What shall we eat, what shall we drink, and wherewithal shall we be clothed?" All indigestible food the sick man should avoid, and whatever his idiosyncrasy dictated to him was difficult of digestion. Bread three days old was easily digested, and much more so than new, on account of its porosity and friableness. He spoke highly of the value of pepsin, and of pepsalia in dyspepsia, as a table condiment. As to drink, he thought that alcohol had its proper place among the drugs. In delirium tremens he advocated kola wine. With reference to clothing, Dr. Hunter laid stress on the value of wool clothing next the skin, explaining how cotton, becoming saturated with perspiration, clung to the skin, while it passed through wool, which, moreover, was nature's covering. In all febrile conditions he advocated the use of woollen night-dresses, and thought that the patient should lie in blankets with no sheets. He signified

an abhorrence of feather beds. Another means of securing comfort to the patient was to relieve pain, and in this part of the subject he dealt chiefly with facial neuralgia and gastralgia, advocating for the former quinine, phosphorus, or gelseminum. Gastralgia, he said, often existed with anæmia in young women, and was best treated by quinine. For eczema Dr. Hunter recommended an ointment composed of liquor carbonis detergens and vaseline and ammoniate of mercury, or Unna's zinc paste, applied as a dressing with several layers of butter-cloth.—A vote of thanks was proposed by Mr. BURNIE, who said, in the course of his remarks, that he felt sure that not a little of the comfort of the patient was made certain by a factor omitted in Dr. Hunter's paper—namely, the kindly sympathy of the medical attendant and the feeling of security that his presence must create.—The vote was carried by acclamation.

PLYMOUTH MEDICAL SOCIETY.—At a meeting held on Oct. 21st, Dr. HINGSTON in the chair, Mr. F. M. WILLIAMS, D.P.H. Camb., medical officer of health for the borough and port, read a paper on Cholera. After giving a brief outline of the history of the disease he mentioned that in the epidemic of 1832, Plymouth, with a population of 31,000, had 702 deaths, representing a mortality of 22·6 per mille. During 1849 830 deaths occurred in Plymouth with a population of 52,223. Mr. Williams then showed a chart giving the cases notified as occurring in England during last September. Several points were brought out: (1) that cholera was endemic in the delta of the Ganges; (2) that the disease had never extended to Europe by "water carriage"; (3) that it had reached Europe in two directions—viz., *viâ* Russia and the Himalayan passes, by caravan and pilgrim routes; and (4) that it had been conveyed to Great Britain and America by ship, and had not travelled faster than the means of communication between the inhabitants of the various countries. In discussing its etiology two theories, each supported by eminent men, were advanced, and Koch's spirillum was fully described. Coming to its prevention, Mr. Williams summed it up in two words—"perfect sanitation," municipal and personal. He referred to our insular position and the various port sanitary authorities as the so-called "first line of defence"; most of the large ports were well-equipped, while the smaller ones, from lack of funds, were not so well administered, and consequently were weak points in the chain of defence. Further legislation giving increased powers to port authorities was urgently needed. Cremation was advocated as the means of disposal of persons who had died from cholera and other zymotic diseases. The methods of port inspection were detailed, as were also the various precautions necessary in the event of an outbreak of the disease.—Inspector-General LLOYD, R.N., asked what were Mr. Williams' views of the water-borne theory of cholera, and pointed out the dangers attending a water-supply by open "leats."—Surgeon-Colonel WELCH inclined to the aerial transmission theory, and mentioned the part played by flies. He considered cholera and enteric fever to be parallel diseases as regarded natural history and course. Cholera had, he said, broken through all the precautions yet devised at our ports. The incubation period of cholera he considered to be from two to seven days.—Dr. W. PEARSE denied that cholera was a specific disease. He advocated opium for the early diarrhœa, stimulants for collapse and plenty of water.—Mr. MAY cited a case of disturbance of a cholera burial-place twenty years previously resulting in a severe outbreak.—Deputy-Inspector General FISHER, R.N., concurred in the value of fluids in the disease.—Mr. WILLIAMS, in his reply, advocated a six days' quarantine for vessels arriving from infected ports.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—At the meeting of this Society on Oct. 28th, Mr. RICHARD FAVELL, President, being in the chair, Mr. SNELL introduced a girl aged twenty with Amblyopia (?) and Blisters on Fore-arm. The latter, it had been proved, were due to the application of a cantharides plaster which had been found on her person. There had also been blisters on the eyelids. The alleged condition of vision (not even counting fingers) did not correspond at all to what she was observed to be able to do when not noticed. Mr. Snell also introduced a man with Sarcoma (?) of Orbit involving apparently the lacrymal gland.—Mr. ATKIN showed a case of Phagedænic Peri-cementitis. The patient was twenty-one years of age, and had been previously healthy. Suppuration commenced over the site of a wisdom tooth and rapidly spread to the sockets of all the teeth and the cellular tissue of the neck. For three months the mouth was constantly discharging fetid pus. Izal proved to be of value as a mouth-wash.—Mr. EDWARD BARBER introduced an unusual case of Expiratory Habit Spasm. The patient, a boy ten years of age, was one of a family of eight, of whom one died in infancy and the rest were healthy. The spasmodic cough which replaced ordinary expiration when the boy was awake and under observation ceased during sleep. The affection was first noticed about three months ago. There had been no improvement since it commenced.—Dr. ARTHUR HALL showed a Heart with a Ring of Calcareous Degeneration occupying the aortic ring and valves, so that the orifice had become slit-like and very narrow. The aorta was not atheromatous and there was no affection of or deposit on any other valve.—Mr. ATKIN read a note on the Treatment of Ear-ache in Children. Catarrhal cases alone were referred to, and the treatment advocated was breathing into the ear by the mother or nurse, and aconite internally. In severe cases blistering fluid, leeches, and incisions might be found to be necessary, as well as a mixture of atropine, morphine, and cocaine instilled into the meatus.—Dr. ALFRED ROBINSON read a paper on the Recent Outbreak of Cholera in Rotherham. Notes of cases and reports of bacteriological examinations were given, and microscopic slides and specimens of rice-water stools were shown. Dr. Robinson began his paper with a sketch of Rotherham and its surroundings, and remarked that Rotherham had the questionable notoriety of being the first inland town attacked by cholera. This was the more curious, as it was further from the sea than any other town in England. After an unusual amount of diarrhœa the first case was notified on Sept. 6th, the following being notes of this and subsequent cases:—Case 1: J. B——, thirty-five, miner, suffering from diarrhœa, but, feeling better, went to fish; was seized with severe vomiting, purging and cramps. Pulse imperceptible; extremities cold, pale, and shrunken; trunk warm; complexion dark; lips nearly black. At 5 P.M. his condition was the same, the lips being scarcely so discoloured. At 7 P.M. he was dead. Dr. Klein, in his bacteriological report, remarked that this case was undoubtedly of Asiatic type. Case 2: J. B——, aged thirty-three, seized on Oct. 1st with nausea, vomiting, and purging, but no pain. Temperature 99°, pulse weak and irregular, extremities warm. Two grains of solid opium gave considerable relief. Next day message received to say patient was dying; found in extreme collapse. Face of a bluish colour, pinched, and anxious; extremities cold; pulse less, heart sounds very faint. Patient restless and sighing deeply. Stools passed every half-hour of rice-water character. Half-grain morphia injected hypodermically when patient rallied. Oct. 3rd.—No nausea or vomiting; stools, still of a rice-water character, passed every two hours. Took nourishment—viz., milk, ice, and a little brandy. Oct. 4th.—Better this morning; later, vomiting and purging returned; consequent collapse. Injected half-grain morphia, and when it commenced to act administered one drachm of brandy in four drachms of chicken broth. This was retained, and the patient fell asleep. Oct. 5th.—Slept till 3 A.M.; has since partaken freely of nourishment and brandy with ice; temperature normal; motions dark-coloured and very offensive. Treatment, one grain opium pill every six hours. Oct. 8th.—The patient has improved for three days and then had a relapse, purging and vomiting returning without any obvious cause, and stools becoming again thin and watery. After morphia injection the patient improved gradually to ultimate recovery.—The following was an abbreviated report by Dr. Sims Woodhead: "Discharge serous, not presenting markedly the "rice-water" appearance of cholera asiatica. Cover-glass preparations were made from discharge, and on microscopical examination a certain number of comma bacilli were found to be present. Inoculations were made on broth, gelatine, agar-agar, potatoes, and milk. The broth, on the addition of pure sulphuric acid, gave the cholera red reaction, and the growth on the various media corresponded with that of Koch's comma bacillus. Two guinea-pigs were inoculated intraperitoneally with a quantity of pure culture usually sufficient to set up the disease; they are both still living. Two days later two other guinea-pigs were inoculated with three times the quantity. These both succumbed within twenty-four hours, and they presented on section the usual appearance of cholera in guinea-pigs, and under the microscope typical comma bacilli were demonstrated. There is, accordingly, no doubt that the case was one of cholera asiatica." Case 3.—G. N——, thirty-nine, miner, out of work twelve weeks and half-starved, living in one room with his wife; no furniture, lying on a mattress on the floor. Had eaten freely of chestnuts. Found on Oct. 18th suffering

from severe cramps, pain, sickness, and copious evacuations of rice-water stools (shown). Temperature in axilla 95 7°; pulse 108. Ordered immediate removal to hospital and injected half a grain of morphia hypodermically. This man made an uninterrupted recovery and was discharged cured on the 25th. Dr. Sims Woodhead confirmed the diagnosis in his bacteriological report and stated that in this case there was no evidence of a diminution in virulence of the organism, as the animals experimented upon reacted to the virus in the same way as they did to material derived from acute Asiatic cholera.—Dr. ROBINSON, in discussing the value of preventive measures, laid particular stress upon efficient drainage, removal of waste material, and good water-supply.

Reviews and Notices of Books.

A Guide to the Examination of the Urine. By J. WICKHAM LEGG, F.R.C.P. Lond. &c. Seventh Edition, Edited and Revised by H. LEWIS JONES, M.A., M.D. London: H. K. Lewis. 1893.

THIS little work does not need any commendation from us, the fact of a seventh edition being called for showing in the best of all ways its appreciation by the profession. It seems a model of what such a work should be—concise yet comprehensive, lucidly written, and well arranged. We are glad to see that the author gives a very necessary caution regarding the hypobromite methods of estimating the amount of urea in the urine. He says "the hypobromite methods give fair results for clinical purposes, but they are not to be regarded as more than rough approximations." We have found these methods very disappointing and uncertain. The writer strongly recommends in preference Liebig's method, in which the reagents employed are mercuric nitrate, baryta, and carbonate of soda. We are disposed to demur somewhat to the author's remarks on the clinical import of casts. The statement that "the presence of casts in the urine is a sure sign of disease of the kidney, but not, however, necessarily of permanent disease of the kidney," seems to us rather too dogmatic. We must remember that Charcot taught that hyaline casts might occur as a normal constituent of the urine, and that epithelial casts might follow the administration of diuretics, apart from actual kidney disease. We are also somewhat surprised to find that in discussing the clinical import of albuminuria the author makes no allusion to the controversy which has excited so much attention in recent years—viz., the so-called "functional" or "physiological" albuminuria. The whole subject of albuminuria is, indeed, dismissed too briefly, and might with advantage be developed more in proportion to its great importance. Again, the statement that "should the presence of sugar in the urine be variable and the amount small the fact is not of any known great diagnostic or therapeutic importance" is too bald. Some hint should be given regarding the influence of age in these cases, and the distinction which can be drawn, clinically at least, between the glycosuria of middle life and diabetes florida.

Brown's South Africa. A Practical and Complete Guide for the use of Tourists, Sportsmen, Invalids, and Settlers. London: Sampson Low, Marston and Co. Cape Town: J. C. Juta Co. 1893.

THIS is a comprehensive, well-arranged, and accurate handbook, which we can recommend. It is not specially designed for invalids, and the information regarding climate and health resorts forms only a small portion of its contents. The ordinary tourist will, however, find it well adapted to his needs. As the author says in his preface, "in spite of the fact that South Africa forms the terminus of the pleasantest of voyages, the tourist has so far been rarer than the attractions of the country warrant, and has either confined his explorations to the sea-coast or, in wandering inland, has practically ventured upon what is to him more or less a *terra incognita*." The neglect of South Africa by the ordinary tourist is intelligible enough, inasmuch as until within quite a recent date the accommodation for travellers was extremely bad. A great change is, however, taking place in this matter; several great trunk lines of railway pierce inland to the utmost limits of civilised life, and the hotel accommodation, though still defective, is rapidly improving.

The topography of South Africa is peculiar and characteristic. The country has been compared to the half of an inverted saucer, but, as the author remarks, it rather resembles an irregular flight of four steps. The first step leads from the coast to the coast plateau, with an elevation of about 500 or 600 feet, the second leads to the Southern Karroo (elevation, 1200 ft.), the third to the Central Karroo (elevation, 2500 ft.), and the fourth to the Northern Karroo (elevation 4000 ft.). Excluding the coast belt, the greater part of South Africa consists of uplands, characterised by a warm and dry climate, a high range of summer heat, a moderate range of winter cold, considerable fluctuations of temperature within the twenty-four hours, and a very high average of bright, bracing, rainless weather. One broad rule of the meteorology of South Africa is that, if we take the 23rd meridian of longitude, which divides the country not very unequally into an eastern and a western half, the rainy season in the eastern half is the summer, while in the western half it is the winter. The greatest rainfall in South Africa is on Table Mountain, where the annual precipitation amounts to from 54 to 78 inches per annum. The average of the Cape peninsula proper is 40 inches, the Port Elizabeth rainfall is 21 inches, while on the Great or Central Karroo it averages about 18 inches in the eastern parts and only 10 inches in the western. As regards the climate of the Northern Karroo, it would seem that there is no marked division of the year into spring, summer, autumn, and winter—rather may it be described as a long summer and a short winter. The summer begins rather suddenly about the month of September, increases in temperature until January, and then decreases until the end of April; while the winter may be said to continue from the end of April till the month of September. The climate of the Northern Karroo is extremely dry, some parts in the west averaging as little as 2 inches of rain in the year, the average for the whole district being 10 inches.

We are disposed to rate South Africa highly as a health resort, especially for scrofula, anæmia, rheumatism, and pulmonary diseases; but care should be taken in the choice of a locality, and the probable nature of the accommodation should always be carefully inquired into. Some of the more noted localities for invalids are Beaufort West, Graaf Reinet, Cradock, Tarkastad, and Aliwal North. South Africa is not suitable for very delicate patients, nor for those in very advanced stages of disease, but for the vigorous patient with a considerable reserve of physical strength, good animal spirits, and the capacity of bearing fatigue and discomfort, it offers very great advantages. Pulmonary cases should, as a general rule, avoid the coast region.

Illustrations of the Nerve Tracts in the Mid and Hind Brain and the Cranial Nerves arising therefrom. By ALEXANDER BRUCE, M.A., M.D., F.R.C.P.Ed., F.R.S.Ed., Lecturer on Pathology in the School of Medicine, Assistant Physician (formerly Pathologist) Edinburgh Royal Infirmary, &c. Edinburgh and London: Young J. Pentland. 1892.

THIS is an excellent monograph on the anatomy of the mid and hind brain, and really consists of two parts. The first part contains a most careful description of the deep origins of the cranial nerves and of the tracts of the medulla, pons, and

crura, and is illustrated with twenty-seven diagrams showing the relations of the deep fibres of the nerves to one another and the connexions of the various tracts of fibres in these parts of the brain. It gives not only the views of the author, but has also an excellent account of the literature bearing on the subject, and is particularly valuable for its criticism of the views expressed by modern observers on the anatomy of the parts described. This part of the work will be a great boon to pathologists and physicians, and even to the student who is anxious to have an accurate knowledge of the latest researches on this most difficult subject; but the second part is even more important and valuable. This contains twenty-eight plates—some with two, three, or more figures—illustrating the anatomy of the region extending upwards from the cervical region of the spinal cord to the anterior corpora quadrigemina, and each plate is accompanied by a clear and concise description. The plates, which are coloured, represent sections of the brain of the human fœtus, which, after staining by the hæmatoxylin method of Weigert, were placed in the camera lucida, the finer details being subsequently filled in from the microscope. The enlargements vary from three to fourteen times, and the drawings have evidently been most carefully and accurately executed. The whole work is a most valuable addition to the exact anatomy of a very difficult region, and one of commanding importance to the physician, anatomist, and physiologist, and it must have entailed an enormous amount of labour. The author and the publisher are both to be congratulated on the manner in which this—one of the best pieces of work of the modern Edinburgh school of anatomy and pathology—has been executed.

LIBRARY TABLE.

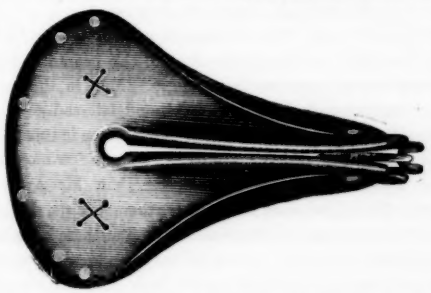
Medical Bookkeeping. Compiled by ROBERT SIMPSON, L.R.C.P., L.R.C.S. Edin. Bristol: John Wright.—One of the familiar bugbears of a medical man's life is the necessity which compels him, as a rule, and however busily occupied in professional work, to act as his own bookkeeper. Usually he has but little spare time that he can depend upon to sit down to this auxiliary duty, hence arises the difficulty in attaining to either convenience or exactitude in the doing of it, and it is the combination of these desirable qualities which confers a special attractiveness upon a modern and popular simplification of the old method of extended entry in daybooks and ledgers. This timely reform is well exemplified in the above-named pocket visiting-list. The work, though not unique of its kind, but a variation of others already in circulation, is arranged with equal simplicity and judgment. The visiting-list is contrived so as to act as a ledger in relation to a journal, with memoranda which might serve as an index of entries. There is also an engagement record for the use of consultants, and a convenient section set apart for nurses' addresses, besides the usual allotment for obstetric notes &c. The principal advantage connected with this convenient pocket-book, and others of its class, is the facility with which the general practitioner can do his own bookkeeping, unaided if necessary, and at any place or time.

Elementary Palæontology for Geological Students. By HENRY WOODS, B.A., F.G.S. Cambridge: the University Press.—This neatly arranged little book is designed to give an elementary account of the fossilised remains of animals and plants, especially the remains of such of the invertebrata as are of particular interest to the geologist, although the various descriptions impart considerable zoological information by the way. There are many illustrations, which are all diagrammatic and serve only to explain the conformation of the parts of the perfect animal or the reasons for its nomenclature; for (as the author rightly hints in the preface) the science of palæontology can only be practically learned by such as have access to a collection of fossils, and to them pictures of the various genera would be a superfluous assistance. As an outline merely, this little manual is very complete, while a list of more important and comprehensive works on the subject is appended for the convenience of those who are anxious to undertake a deeper study.

New Inventions.

AN IMPROVEMENT IN CYCLE SEATS.

MUCH has been written on the subject of the "cyclist's stoop," and many are the suggestions which have been set forth for remedying the evil. This, however, is not the only ill which the injudicious cyclist may be heir to. There is more danger from perineal pressure than is generally admitted. Such pressure is not immediately felt by the majority of riders, but there are a large minority who are inconvenienced by it, and a few of that minority who suffer severely. Instances are not wanting in which physicians and surgeons have been obliged to forbid bicycle riding altogether in consequence of this pressure on the perineum. Any plan, therefore, which, without interfering with the comfort of riders, serves to obviate inconvenience and danger seems to be well worthy of consideration from every point of view. A series of bicycle saddles which claim



to possess this quality has been submitted to us for experiment. They have been put fairly through severe tests and have stood them in the most satisfactory manner. Attempts have been made from time to time to mitigate this evil by having, as in the case of the "hammock saddle," a slit in the centre of the seat, leaving, however, the fore part solid and of a convex form, which, when in use, wedges itself into the perineum. In the "Pattison saddle" this slit is carried right forward in the manner shown in the illustration, pressure upon it causes the front of the seat to assume a concave form, and this part is never forced up towards the perineum. There are many other points of excellence which might be mentioned in connexion with this bicycle seat; but it is obvious that as far as doing away with pressure on the perineum is concerned the seat is correct in principle and has been constructed in such a manner as to merit high commendation. The saddle is the invention of Captain Pattison, of Hereford Mansions, Bayswater.

MIDLAND MEDICAL SOCIETY.—The inaugural meeting of this Society, which was well attended, took place on the 2nd inst. at the Medical Institute, Birmingham. Mr. Evans, the President, occupied the chair. At the conversazione a number of new medical and surgical instruments and appliances were exhibited, as also a new method of photomicroscopy. After the conversazione the President introduced Dr. C. J. Cullingworth, who delivered an address on "Pelvic Abscess" (which was published in THE LANCET last week), on the conclusion of which a hearty vote of thanks was accorded to him.

THE LANCET.

LONDON: SATURDAY, NOVEMBER 11, 1893.

IF the illness of Sir ANDREW CLARK was a public event, his death is a great public loss. It has occurred somewhat dramatically. On the day before his illness he appeared in the chair of the Royal College of Physicians and spoke with that fulness of thought and expression which made him one of the orators of the day. His fatal illness began in his study, whilst conversing with a friend. And where it began it ended. In his study, in which there had been more consultations than in any other room for the time being in London—and consultations with distinguished personages—in that same study the great physician himself was detained till his release. During the days of his illness public interest was intense, and no morning or evening paper could appear without the latest news of Sir ANDREW CLARK, as if he were an indispensable statesman, or a favourite man of letters, or a great soldier to whom the people looked. We were reminded of the words:

> "A wise physician, skilled our wounds to heal,
> Is more than armies to the public weal."

And when the news of death came, in spite of ten or twelve days of warning, it came like a shock to the people and like a family bereavement to their homes. Men in the street said, "Sir ANDREW CLARK is dead," and felt sad.

There is something greatly out of the common in this event, the explanation of which must detain us for a few moments. There have been greater pathologists than Sir ANDREW CLARK. There have even been greater therapeutists. Perhaps there have been greater diagnosticians. But there have been few greater physicians, few who have made a deeper impression on the public mind and who have done more to raise the influence and to assert the claims of the medical profession. Let us try to extract the lessons of a life so intense, so successful, and so influential for good in the community. For one thing, Sir ANDREW CLARK was a very fully equipped physician. If we admit, as we have, that there have been greater pathologists, and possibly greater therapeutists, than he, there have been few in whom there was such a large blending of all the knowledge that goes to constitute the physician. With all his engagements he found time—nobody knew how—to keep up his knowledge of research alike in pathology and physiology and therapeutics. No younger practitioner could surprise him with a new remedy, and yet he continued to be loyal to old and tried ones. His great *forte* was that he believed in not giving in to disease. He had in his own person kept disease at bay. He was fond of saying to his intimate friends that he never had a day's health in his life. He had before his fame set in a phthisical tendency, with frequent hæmoptysis, which some said would kill him; but he kept it under—more perhaps by regimen than by drugs. He fought it and he overcame it; and his success in his own case emboldened him to fight disease in others—with what results let his fame and the number and the distinction of his patients declare. He believed in fighting disease, and he inspired those who suffered from it with some of his own courage and hope. When a man feels assured that he has successfully antagonised tubercle he may be excused for being sanguine in his antagonism to other forms of disease. Then there was in Sir ANDREW CLARK'S personality everything that impressed patients—his voice, his strong human interest in their story, his kindness, his sympathy, his dogmatic instructions, amounting sometimes to a sort of medical sermon, and his detailed directions for diet and for mode of living made them feel as if they really had something to do and as if the doing it would open new vistas of health and hope. The fascination of his personality is not to be explained away on slight theories. It affected and controlled some of the greatest of his contemporaries, men and women, many of whom doubtless owe their lives to his advice. It would be affectation not to single out one illustrious patient whose life has been the peculiar care, and perhaps we should be right in saying the peculiar credit, of Sir ANDREW CLARK.

Sir ANDREW CLARK was becoming famous before he was made President of the Royal College of Physicians in 1888; but his election to that office gave a new field for the display of his rare qualities—his enthusiasm, his love for his profession, his eloquence, and his sense of the dignity of our ancient Colleges and of our calling. There never has been a better President or one who has left the College higher in public estimation and influence. This is admitted on all hands, as well it might be, for Sir ANDREW CLARK'S time was given unstintedly to College business, as if he were a man of leisure. He was most jealous of its honour. He fought for it against all comers alike on great questions of power and smaller questions of precedence. Himself a Scottish graduate, only the second of his class, who had gained the chair, he entered into the affairs and administration of the College with a zest never exceeded by his illustrious predecessors, who were mostly men proud of their connexion with the ancient Universities of England. The eminence of his collegiate position gives additional importance to the death of Sir ANDREW CLARK and plunges his colleagues of the College into deep personal grief and into some embarrassment as to finding another Fellow who will with equal ability and dignity discharge the duties of the office. It is not the first time in comparatively recent years that the College has sustained the loss of its President. Sir HENRY HALFORD, at the age of seventy-eight, died when President in March, 1844, having filled that office for twenty-four years; and Dr. PARIS, who succeeded him, died when President at the age of seventy-two, in December, 1856.

We should imperfectly explain the wide sensation produced by the death of Sir ANDREW CLARK if we did not add that in addition to his rare qualities as a physician and his high office as President of the College of Physicians he had a clear position as a public man. He properly hesitated to take any one-sided or merely political position; but in regard to questions of education, of temperance, of religion and morals, of social and sanitary reform, of hospital support and the like, he was intensely in earnest and spoke in a way that made others equally earnest. His appearance at the Mansion House or elsewhere made it hard for other speakers, and he was present often and at the sacrifice of high fees and, what was more valuable to him, of hours of rest.

We have said nothing of Sir ANDREW CLARK in his relation to his professional brethren and his friends—how he served

them, how he supported them, and how he sympathised with them. No trouble was too great, no night was too cold, no sacrifice too much, and no distance too far to fulfil the duties of his friendship, which knew no narrow bounds or jealous conditions. We have left ourselves no room to speak of his reverence, his impatience with all flippant forms of infidelity, and his religion, which was strongly compounded of Scottish puritanism and moderate Anglicanism, but embraced all men in his charity and in his "cheerful godliness." This must be a great solace to Lady CLARK and to the other members of the family who more acutely feel that loss which the public feels so deeply, and who by their affection and devotion did so much to help and support Sir ANDREW CLARK in his career of unresting and arduous labour.

THE annual general meeting of Fellows and Members of the Royal College of Surgeons of England, held on the 2nd inst., though scantily attended by the Members of the College, produced a discussion which presented features of interest and importance to the progress of reform. On the preceding day it looked as if the business of the meeting would be transacted in a purely formal manner, for no resolution had been sent in to the Secretary of the College. From this torpid condition it was rescued by Surgeon-Major INCE and the Committee of the Association of Fellows, which held its first meeting for the session on Wednesday and passed a number of resolutions, in the interests of the Fellows, in the form of a report, which will be found in another column. The terms of the resolution, moved by Surgeon-Major INCE and seconded by Mr. CRAVEN (of Hull), were as follows: "That this meeting of Fellows and Members desires to thank the Council for the full and interesting report now presented; also for the important concessions already granted to them; and relies upon the Council's continued favourable consideration of such further suggestions as may, in the judgment of the Council, tend to the harmony, stability, and dignity of this great corporation."

Both the mover and seconder of this congratulatory resolution were in the most trustful and optimistic frame of mind, and from the tenour of their remarks it might have been inferred that the millennial period had been reached at the College. But, whilst concurring in the propriety of fully recognising any concessions made by the Council to the Fellows and Members, and of preserving due courtesy and dignity in debate, we must point out that the only additional privilege accorded to the Members of the College has been the assignment of a Common Room to the Fellows and Members. It was applied for primarily for the use of the Fellows, a similar room being assigned to their Fellows by other corporations, but when legal opinion was taken the Council was advised that it would be undesirable to grant exclusive privileges to the Fellows either in this respect or in regard to meetings at the College. It could have been done and no doubt legally maintained; but it would have been liable to challenge as well as an inexpedient course in the interests of peace. Under existing charters the Members are an integral part of the corporation. The Fellowship of the Royal College of Surgeons confers no new or higher position in this respect, although the Fellows have had granted to them the exclusive privilege of election of the members of the Council. We are not cognisant of any sign of coming acts of grace from the Council to the Members of the College. The Council has shown, and is now showing, abundant evidence of a desire to draw closer the bonds of amity and confidence with the Fellows of the College, but there is no approach towards the Members that has not been the outcome of the advances made towards the Fellows. It would, therefore, be as great a mistake to adopt the complacent attitude assumed by Surgeon-Major INCE and Mr. CRAVEN as it is to speak in the discourteous terms which mar the effect of the criticism of some of the Members of the College at the annual meetings. The Council of the College is not likely spontaneously to grant to the Members of the College that voice in the management of the institution to which they are entitled and which would be a great gain to the College itself. Surgeon-Major INCE overlooked this consideration, and his assertion that he did not see at the present moment anything that they as Members could further ask from the Council was as ill-judged as it was inconsistent with his own previously expressed view that the Members of the corporation should have some direct as well as indirect voice in the election of members of the Council. This direct voice is exactly what the Members can and ought to ask for now and evermore until it is obtained. Inconsistency, however, and want of perception of the proper means of obtaining for the Members the privileges to which they aspire were not confined to the eulogisers of the Council. Mr. NELSON HARDY is an acute critic and an interesting and incisive speaker, but, whilst he complains of the empty benches, which he lays erroneously at the door of the Council, he utters with the same breath a desire to see them still more empty, forgetting that, if the Council has been pursuing a policy with the intent to empty them, he is playing into its hands by speaking and acting in a way to secure that object. In point of fact, as was pointed out by Mr. RIVINGTON, the benches, denuded of their proper occupants — the Members of the College — is one of the results of the policy which the Members have pursued and seem still bent on pursuing. In former years the Association of Members formulated and promoted pithy resolutions at the annual meetings, and they whipped up their constituents to attend and vote. They entrusted their resolutions to argumentative speakers like the late Mr. GAMGEE and did not rely upon unvarnished invective. As Lord BEACONSFIELD once remarked, invective is a great ornament of debate, but it should be done *ad unguem*. Clear and cogent argument is far superior to invective, for it is capable of convincing opponents and turning a minority into a majority. Such argument was adduced by the speakers in former years, with the result that the theatre overflowed and the resolutions were carried by large majorities. Many of the Fellows sympathised with the Members' aspirations and spoke and voted for them, but forthwith the leaders of the Members' Association proceeded to cast themselves adrift from the Fellows who had helped them at the risk of a schism among themselves. They demanded too much and staked everything on an action which was unsound and had an unfortunate ending. The prospects of the Members fell to the lowest ebb, and it was impossible for the Fellows of the

College and members of the Council of the College who are favourable to the representation of the Members of the College on the Council to take any steps to enforce their views. The tone of the speeches made on behalf of the Members has created an additional obstacle. When Surgeon-Major INCE remarked that they knew almost everything that took place, he spoke without a book. The presence of reporters at the meetings of the Council would not altogether ensure such knowledge. It is a far cry yet to reporters, but had their services been in requisition, it would have been found that a proposition or a suggestion had been made in the Council for the omission of the annual meeting. Fortunately the movement was frustrated, but we believe that the annual general meeting was in great danger of being set aside altogether. The second resolution, therefore, which was moved by Mr. KEETLEY and seconded by Mr. NORTON, was most necessary and opportune. It affirmed: "That if separate meetings of Fellows be summoned regularly by the Council for consultative purposes it is desirable that they should not supersede or interfere with the annual meeting of Fellows and Members, at which the annual report of the Council is presented and discussed." This resolution reaffirms one of the fundamental articles of the Fellows' Association moved in 1884 by Mr. PAUL SWAIN of Plymouth, who appears unaccountably to have dropped out of the ranks of the reformers. Its resuscitation in its present connexion serves to show that the Fellows, whilst vindicating their own claims, were not unmindful of the larger body behind them. Mr. KEETLEY distinctly stated that it was "not his intention to turn his back upon the Members, who, after all, formed the backbone of the College," and Mr. NORTON fully recognised the importance of the annual meeting in the interests alike of the Members and the corporation itself. When the resolution was first read by the Secretary the President interposed to say that, "so far as he knew, there never was any suggestion that the meetings of the Fellows should interfere with the annual meeting," and the remark was at once made use of by the trustful section of the audience for the purpose of suggesting that the resolution should be withdrawn; but through the intervention of Mr. RIVINGTON, who threw a little light upon the situation, it was carried *nem. con.* Mr. RIVINGTON embraced the opportunity to observe that he had not previously as a member of the Council taken part in the discussions because he had not seen his way to speak with advantage, and he mentioned the fact that the subject of doing away with the annual meeting had been discussed at the Council. We are glad to find that he fully maintains the opinions which he expressed in debate at the College in favour of according representation to the Members. Other Fellows on the Council hold similar views, but the times have been unpropitious and unripe for their realisation. The prospects of the Members have been clouded, as they now recognise themselves, by an ill-advised perseverance in a mistaken line of action. A change of front, a resuscitation of their organisation, and fresh efforts in a new direction will probably put a different complexion on the movement. Hitherto the Council of the College has been autocratic, but the recent elections to the Council have so modified its composition and leavened it that the autocracy will be tempered by regular consultation of the Fellows. The contentment of the Fellows must react for the benefit of the Members by rendering them favourably inclined to concur in reasonable concessions. When the Members' claims were first brought forward the majority of the Fellows were alienated by the fear that what was to be given to the Members was to be taken from the Fellows, and that the Fellows would be swamped by the larger body. These fears will no longer bar the path of the Members. Let the Members be conciliatory towards the Council, considerate of the interests of the Fellows, and strictly moderate both in their language and in their claims, and there is no reason why their past defeat should not speedily be effaced by victory. The extremes of optimism and blind trust in the Council, on the one hand, and of pessimism, abuse, and distrust of the Council, on the other, are equally to be avoided. The Members must not forget that the Council, being elected by the Fellows, must naturally be swayed by the bias of opinion amongst the body which elects them, and cannot, or is not likely to, be in advance of current opinion among the Fellows of the College. That opinion is leaning favourably towards the Members as a body, and will lean more favourably in proportion to the dignity and moderation of the counsel and conduct of the Members themselves. The fault will not be with the Council or with the Fellows of the College, but with the Members if they do not secure more recognition of their rights.

We record with satisfaction the notes of congratulation with which Mr. HULKE was greeted on his appearance in the chair alike from the Fellows and the Members. One of the speakers took occasion to observe that Mr. HULKE'S election to the presidency of one of the medical societies by a popular vote showed that, had the election of President of the College been in the hands of the body of Fellows and Members, Mr. HULKE would still have occupied the presidential chair. From all we have seen and heard Mr. HULKE will be an excellent President. He obviously desires to be strictly impartial and fair to all parties.

THE Parish Councils Bill, the second reading of which was moved with such suavity of speech on Thursday, the 2nd inst., by Mr. H. FOWLER, is a striking illustration of the wrongheadedness with which the public will persist in following a false scent when a red herring has been ingeniously trailed across the right one. In spite of the fact that the title of the Bill indicates clearly enough that it has a far larger scope than that of merely creating parish councils, and of it having been freely admitted by the President of the Local Government Board when he originally introduced it to Parliament that it was merely the complement of the Act for consolidating and organising local government in England and Wales which was carried through Parliament under the last Government by his predecessor, Mr. RITCHIE, both the public and Press insist on ignoring the larger purview of the measure, and on, at least in name, whittling its importance down to the narrow limits of a scheme for the reorganisation of parish vestries—for such the parish council will in effect continue to be, in spite of the somewhat more ambitious title with which the parish vestry is in future to be dubbed. HORACE warned schemers long ago that "cœlum non animum mutant qui trans mare

currunt," and it remains to be seen how far Mr. FOWLER can succeed by merely changing the name of the parish vestry and by investing it with a fictitious semblance of power—which it will soon find that it really does not possess unless the Bill is more largely altered in committee than appears to be likely to be the case—in galvanising new life into an institution which has become practically effete. There can be little doubt in the mind of anyone who has had opportunities of gauging the interest taken by the agricultural labourer in the Bill since it was first introduced that, as far as he takes any interest in it at all, it is mainly limited to the expectation which he has been encouraged to entertain of its enabling him to obtain allotments at the public expense. Even the painstaking and graphic special correspondent of the *Daily News*, who has been so assiduously ferreting out the penetralia of the bucolic mind, has not obtained a scintilla of evidence that HODGE welcomes the prospect of the parish council with any hope that it will help him to improve his sanitary surroundings. When commenting on the Bill at the time of its introduction into Parliament,[1] we took occasion to point out the misconception which appeared to prevail as to the impetus to sanitary improvement in rural districts which was likely to be derived from the institution of parish councils. The two items of such improvements which the agricultural labourer most readily appreciates are improved dwellings and a better water-supply; but these are improvements which cannot be obtained without expenditure, and the question which will meet the parish council at the outset, when it comes to tackle these matters, is:—who is to pay for them? This question, of course, is only a subordinate element of the still larger one:—who is to pay, not only for improved dwellings and water-supplies, but for the schemes of drainage which, in so many cases, have been "under consideration" for years past by rural sanitary authorities, but have not been carried out because of the opposition offered by the parishes affected by them to the outlay involved? Of course, if, as is the case at present, the great bulk of the rates is paid by others than the agricultural labourer, it is highly probable that HODGE will vote enthusiastically for enterprises from which he will derive considerable benefit, but to which he will contribute little or nothing. If, however, what Mr. LOWTHER designated as "that unmitigated nuisance, the compound householder," is abolished, as appears very likely to be the case, the agricultural labourer will have to pay his share directly to the rates, and in that case it is very doubtful whether he will be more eager to spend money on sanitary improvements than the farmer generally is now. The prospect in this respect will, no doubt, be largely influenced by the amendment of which Mr. HENEAGE has given notice, if it should be carried. Mr. HENEAGE proposes that all powers relating to Poor-law and sanitary questions should be conferred upon county councils, with liberty to delegate purely administrative matters to district councils. It is, we believe, in this direction alone that the motive power which is necessary to give effect to the machinery created by the Bill is to be looked for. We might as well expect that a man's limbs should move without a brain to initiate and coördinate their motions as to think that parish councils will impose on themselves expenditure the advantage of which they imperfectly appreciate. Hitherto the pressure on local authorities to undertake sanitary improvements has come from the Local Government Board; but the inevitable delays which must attend all transactions with a great public office have caused the local authorities to look upon its interference as a subject, as the French say, *pour rire*. That county councils ought to be invested with much larger powers with regard to the supervision of the smaller local authorities than they already possess is now admitted on all sides. Mr. RITCHIE originally intended to confer such powers, and was only compelled to forego doing so by the absolute necessity of lightening his measure in order to pass it through Parliament at all. There is, therefore, every hope that Mr. FOWLER, who has shown real desire to propitiate opposition by an indication of his willingness to leave as much of the Bill as possible open to the general opinion of the House of Commons, will accept Mr. HENEAGE'S amendment, and in that case the so-called "Parish Councils Bill" will probably exert a much larger degree of influence on sanitary improvement in the future than it is likely to do in its present shape.

[1] THE LANCET, April 8th, 1893.

THE report of the Commissioners of Prisons does not indulge in verbosity or detail, but it gives some general statements with regard to the amount of occurring crime which cannot fail to be of interest. It points out that since 1877, the year in which the local prisons (containing prisoners not sentenced to penal servitude) were transferred to Government, the prison population has almost continuously fallen, notwithstanding the increase of the general population; but, as was reasonably to be expected, the numbers have risen in the past year above the unprecedentedly low level of the previous year. The numbers for the year ended March, 1879, were 19,818; for the year ended March, 1892, 12,633; and for the year ended March, 1893, 13,178. A diagram is given which shows that, with singular uniformity, the prison population is at its lowest in the first quarter of the year, and at its highest at the end of the third quarter, this being a complete refutation of the assertion frequently made that persons are driven to commit crime in order to obtain a shelter during the hardships of the winter season. The number of habitual criminals is stated to be apparently decreasing; and a comparison of the condition of things at the present time with what it was ten years ago shows that there is some ground to hope that the supply of criminals is being cut off at its source, and that the great diminution in the prison population has been principally brought about by the younger portion of the community becoming more free from crimes which subject them to imprisonment. There was nothing to indicate that the fluctuations in crime and drunkenness tallied in such a way as to establish any marked connexion between the two, or that in any important degree the diminution of ordinary crime was due to a diminution in drunkenness. These statements cannot fail to be helpful to those who occupy themselves with the great social problems involved in the various topics dealt with. What more immediately concern us are the Notes made by the medical inspector and inserted in the appendix. Of the 13,821 prisoners, 2317 were females. The number of deaths from

natural causes was 99, or 7·1 per 1000 of the daily average population. With the exception of one year this death-rate is the lowest on record, and at the same time the releases on medical grounds were fewer, proportionately to the population, than in any year of which there is record. The sanitary services of the prisons have maintained their high standard of efficiency.

Dr. GOVER has felt it to be his duty to again draw attention to the large number of insane who are received into prisons with sentences varying from seven days' imprisonment to penal servitude for a term of years, and who are recognised by the medical officers of the prisons as insane at or very shortly after the time of reception. He continues: "As many as 81 cases answering to this description were received into the prisons during the year. They may be classified as follows: mania, 18 cases; dementia, 17; delusional insanity, 13; general paralysis of the insane, 8; alcoholic mania, 5; melancholia, 4; monomania, 3; epileptic insanity, 2; religious mania, 1; recurrent mania, 1; amentia, 1. In most cases these prisoners were certified to be insane soon after trial and were removed to lunatic asylums. All were unfit for prison discipline, and many must have been unable to understand why they were placed upon their trial or the meaning of many of the proceedings taken. The insanity was very obvious in most cases, and it is to be regretted that they were not taken care of and looked after by their friends or by the police or the guardians before they committed crimes, some of which were of an indecent or violent character. In numerous other cases insanity existed both at the time of trial and on reception, but was not immediately detected."

Such an important official statement as this cannot be allowed to pass unheeded, as it demonstrates the existence of an undoubted blot in the judicial system of the country. It appears to us that the interests and duties involved in this question are threefold: (1) those of our prisons; (2) those of our lunatic asylums; (3) those of the community in general. *Prisons:* It is not unnatural that, in a year in which the number of lunatics, proportionately to prison population, was larger than that of any year on record, the prison officials should be anxious to explain and to prove that this increasing amount of insanity was not referable to the rigour, discipline, and irksomeness of prison life; and on their own showing this may fairly be taken to be the case. We have analysed the "particulars" of the 295 cases of insanity which occurred in the year, and we find that only 51—i.e., a proportion of 17 per cent.—are entered as having their mental condition sane, sound, normal, or good at the time of reception. This bears out the statement of the inspector as given above. Again, in the Notes for the year 1888-89, the inspector says: "It is doubtful whether in more than some six or eight out of the total of 349 cases of insanity the unsound state of mind really commenced in prison." We confess that we should not have been surprised to have found this proportion much larger than it is here stated to be; but, at all events, the fact is not to be overlooked that in a certain proportion of cases a temporary imprisonment is not unlikely to prove beneficial, as in cases where prison regimen and regularity help to restore a mental balance that is in process of being overthrown or shattered by riotous excess in one or more directions. In any case the treatment of lunatics in prison is always a great source of inconvenience and is apt to upset discipline and provoke imitation, apart from the fact that in many cases it is simply impossible to deal properly with them owing to the inadequate resources and means at the disposal of the medical officer under prison conditions. *Lunatic Asylums:* Among other considerations in this relation there can be no doubt that there is a large class of lunatics who are a great and often needless source of trouble in the wards of an asylum, and these are the unhappy beings who are practically criminals when in asylum, and lunatics when in prison, and who pass most of their time in one or other. Theirs is essentially a lunatic nature; they are socially incompatible and they ought to be firmly dealt with from this point of view, as sooner or later it comes to this. In addition to these there are those whose importunities or whose relatives have brought about their discharge from asylum before they were completely recovered and able to keep themselves out of trouble. They count as asylum "recoveries," but they soon become prison "admissions." Looking down the table of "Particulars" given in the Commissioners' report (appendix), it is seen that in upwards of seventy cases the lunatics are known to have been insane before; and the following, which speak for themselves, are some of the entries: "discharged from asylum seven days previous to offence"; "in six asylums before"; "in five asylums"; "previously charged with attempted suicide"; "strong family history of insanity." *The Community:* It is the duty of the general public to take steps to ensure that they are not preyed upon by lunatics who ought to be under care and supervision, and who by being at large are allowed to commit violent and indecent crimes. It is, further, their duty to take care that insane persons are not sentenced and imprisoned for offences committed by them when they are mentally irresponsible for their acts. It is at the police-court stage that this can be most readily and efficiently done, either by examination by the divisional surgeon or by relegating the accused person to be reported upon by the medical officer of some public institution. In London it appears that the sending of insane persons to prison is in a great measure prevented by making use of Holloway Prison as a place in which accused persons of doubtful sanity can be observed and tested. We think that this method of procedure should be put in practice at all police-courts and sessions throughout the country.

THE report by Dr. BARRY on enteric fever in the Tees Valley, which has just been issued by the medical officer of the Local Government Board,[1] is of much interest and importance as a solid contribution of fact on the general question of the etiology of typhoid fever. That its intrinsic merit is of high order hardly needs to be said when we recal the splendid piece of work done by him in his memorable report on the outbreak of small-pox in Sheffield in 1882-83. The present volume is quite in keeping with that one in the painstaking care and elaboration with which the facts are analysed, as also in the no less admirable manner in which

[1] Twenty-first Annual Report of the Local Government Board, 1891-92. Supplement in continuation of the Report of the Medical Officer for 1891. Enteric Fever in the Tees Valley. London: Eyre and Spottiswoode. 1893. Price 1s. 10d.

they are graphically represented in the plans and diagrams that are so profusely given. The report is the outcome of an investigation into the causes of two outbreaks of enteric fever in the Tees Valley—one in the autumn of 1890, the other in the beginning of 1891—each covering a period of about six weeks. The disease, which is endemic in this and the neighbouring districts—showing, indeed, of late years a greater prevalence there than the average—was remarkably aggravated within the periods named in certain areas of it, and it was to account for these epidemic outbursts that the inquiry was undertaken. The area of inquiry comprised ten registration districts bordering on the Tees, where there were known to have occurred from January, 1890, to March, 1891, 2769 cases of enteric fever, of which number 2461, or 89 per cent., occurred in the three registration districts of Darlington, Stockton, and Middlesbrough; but in the six weeks ending Oct. 18th, 1890, and in the six weeks ending Feb. 7th, 1891, there was no less a proportion than 53 per cent. of the whole number attacked during the fifteen months, and this disproportionate excess was more marked in the above-named districts than in the others. It is further pointed out that these outbreaks took place at a time of year when enteric fever is not apt to be epidemic. In order to correct any error that may be due to the lack of notification in some of the districts Dr. BARRY has compared the mortality returns from this disease during the same period, which showed that of a total of 358 deaths 273, or 76 per cent., occurred in Darlington, Stockton, and Middlesbrough. He next studies the incidence of the disease on each of the thirty-two sanitary districts contained within the same area, from which it appears that of all the cases 2479, or 89·5 per cent., occurred within ten of these—namely, in nine of the eleven sanitary districts within the registration districts of Darlington, Stockton, and Middlesbrough, and in the Kirkleatham urban sanitary district of the Guisborough registration district. Further, in each of these ten sanitary districts there was a simultaneous excessive incidence in the two six-weekly periods named. Lastly, a detailed scrutiny of the distribution of the cases within the towns of Darlington, Stockton-on-Tees, and Middlesbrough showed that this was fairly equally apportioned among the different wards (twenty-one in all) into which these towns are subdivided. The statement which summarises the facts of this part of the inquiry may be said to give succinctly the justification of the latter; it is to the effect that "there occurred in each of the two six-weekly periods at the end of 1890 and the beginning of 1891 excessive incidence of enteric fever in the urban sanitary districts of Darlington, Stockton-on-Tees, Middlesbrough, South Stockton, Ormesby, Normanby, Easton, and Kirkleheaton, and in the rural sanitary districts of Darlington and Stockton, and that this excessive incidence of fever, though general in the large urban districts, was limited to certain portions only of the rural districts."

Dr. BARRY, in his endeavour to account for these outbreaks, discusses in turn each of several possible factors before arriving at the sole condition which, common to the whole infected area, was without doubt the *fons et origo mali*. There could be no question here of contaminated milk supply—the area of infection was far too wide to admit of this explanation for a moment. He turns, therefore, to consider the sanitary circumstances of each one of the inculpated districts, and, after enumerating these in detail, points out that there is nothing in common between them as regards elevation or subsoil, nature of house accommodation or surface cleanliness, or in the pursuits of the inhabitants. There is similar diversity in the modes of the disposal of excrement and refuse, objectionable and primitive as many often were, and also as regards sewage and drainage. Defects there were in these respects in abundance, but so variously distributed as to afford no ground for seeking therein a common origin for the fever outbreak. On the other hand, in the matter of water-supply each of the ten districts resembled the other. They derived their water from the River Tees, either through the medium of the waterworks of the Stockton and Middlesbrough Board or from those of the Darlington Corporation, the intakes of each of these being situated near together at a point down the river below the towns and villages that drained into it. Following up this clue of the possibility of the outbreaks being associated with drinking impure water, the inquiry next proceeded to contrast the incidence of fever upon districts using water from the Tees and those which gained their supply from other sources. A table giving the figures of the last Census shows that of the 93,974 inhabited houses in the whole area (thirty-two sanitary districts) 39,566 were supplied with Tees water and 54,408 with water from other sources; or of 503,616 inhabitants, 219,435 used Tees water and 284,181 used water from other sources, while the attack rate per 10,000 of those suffering from enteric fever was, for non-users, 1, and for users, 15; or, during the six-weekly period ending Oct. 18th, 1890, for non-users, 1, for users, 11; and for the six weeks ending Feb. 7th, 1891, for non-users, 1, for users, 28. Such figures carry conviction with them in incriminating the Tees water.

Dr. BARRY next describes the Darlington Corporation Waterworks and those of the Stockton and Middlesbrough Water Board, and goes on to describe the condition of the river above their intakes. This section forms the most painfully instructive part of the whole report, showing with what impunity, even in these days of boasted sanitary enlightenment, a river may be polluted by refuse and human excreta—so that it becomes little more than a common sewer, carrying with it the germs of disease. The state of affairs at that picturesque resort, Barnard Castle, is truly lamentable, and that especial danger would exist in time of flood is proved by the fact that accumulations of filth are allowed to occur on the banks and shores of the stream, which remain untouched until the swollen river during flood time comes to sweep them away. As Dr. BARRY says: "There can be no doubt at all that a vast amount of excremental filth and house refuse from one and another source is being continually poured into and conveyed down the river Tees; or that the amount of polluting matter so carried down is enormously increased during periods of heavy rainfall when the river is flooded." It is in harmony with this condition of things to find that the two outbreaks of enteric fever concerned were preceded by a short interval of exceptionally heavy rainfall. "Seldom, if ever," writes Dr. THORNE THORNE in his introduction to the report, "has a case of the fouling of water intended for human consumption, so gross or

so persistently maintained, come within the cognisance of the Medical Department, and seldom, if ever, has the proof of the relation of the use of water so befouled to wholesale occurrence of enteric fever been more obvious and patent." Strong as is the censure which these words imply, it is not too strong for the supineness displayed by the authorities in the district, who more than twenty years ago admitted the evil and made an effort to meet it, but never carried their schemes to completion. The continued existence of such conditions is a standing danger to the health of the community, who are at least entitled to be furnished with pure water for consumption; and it is to be hoped that no considerations will now interfere to prevent the remedy of this great evil, which threatens many another district in this country that relies for its water-supply upon a river liable at any time to be similarly polluted. The reason for the unusual prevalence of the endemic disease in many parts may, in all probability, be referred to similar instances of contamination, unsuspected because not brought to light by a concurrence of conditions such as that which led to the exacerbations of the disease in the Tees Valley in 1890-91.

Annotations.

"Ne quid nimis."

THE PRESIDENCY OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE vacancy created in the Royal College of Physicians by the death of Sir Andrew Clark will impose on the Fellows the serious duty of choosing a new President from among their number. The office is an annual one, and the established day for the annual election is on "the day following Palm Sunday." But Section VI. of the Act 23 and 24 Victoria, c. 66 (an Act to amend the Medical Act, 1858), which thus provides for the annual election of a new President, goes on to say: "Or in case of the death, resignation, or other avoidance of any such President before the expiration of his year of office the said Fellows shall, at a meeting to be holden by them for that purpose, as soon as conveniently may be (of which due notice shall be given) elect one other of the Fellows of the said Corporation in such manner as aforesaid to be President for the remainder of the year in which such death, resignation, or other avoidance shall happen, and until such election the duties of President shall be performed by the senior Censor for the time being."

THE INCREASE AND DIFFUSION OF SMALL-POX.

THERE are already signs that the seasonal extension of small-pox in urban districts, to which we have more than once adverted, has set in for the winter, and unless it can be checked at an early date we may expect it to go on, slowly perhaps at first, but steadily, until May of next year. Since London abandoned the practice of aggregating small-pox within its own populous limits it has not acted as a centre from which the disease has travelled to provincial towns and districts; but the provinces are taking their revenge, and the small-pox which commenced in somewhat distant parts of England two years ago doubtless served as the means which led to the outbreak in London last year. Since we never exterminated the malady in the metropolis during the summer months, we may find that last year's experience was only a forecast of something worse to happen during the forthcoming winter and spring. For the moment Kensington is taking the initiative, no less than five and eleven fresh attacks of small-pox having respectively occurred within the parish on single days since Nov. 2nd; cases are also being returned from Paddington, Chelsea, and Greenwich, and, whereas a short time ago the number of patients in the hospital ships and encampments of the Metropolitan Asylums Board had become reduced to about 70, it is now rising, and has already exceeded 120. In Bradford 28 fresh cases occurred last week, but the immediate emergency seems to be so far met that the system of free vaccination organised by the sanitary committee of the town council has been suspended. In Walsall 57 fresh attacks occurred; the patients in hospital number about 100, whilst 60 are under treatment outside. In all there have now been about 390 cases in the borough, and it is stated that from 70 to 75 per cent. of the recent attacks have occurred in houses in which the disease had previously appeared. The principal fresh attacks announced during last week were: London, 29; Birmingham, 17; Bristol, 8; West Ham, 7; Leicester, 3; Aston Manor, 2; Birkenhead, 2; St. George's (Bristol), 2.

JUSTICES OF THE PEACE.

A RETURN has just been issued which purports to give the occupations of justices of the peace throughout the United Kingdom, and which contains much interesting information respecting those parts of the country which have been represented accurately in its pages. Considered as a whole, however, it is rendered valueless by the misuse of the vague word "esquire," which in some localities has been used to the practical exclusion of any more descriptive designation. It would be interesting to be able to ascertain to what extent the various professional and other classes take part in the local administration which is confided to justices of the peace; but this cannot be learnt from the present document. Thus only ninety-nine medical practitioners figure as such in the entire list of English justices, and from their total absence from large areas—such as Cornwall, Derby, Norfolk, Suffolk, Wilts, and Shropshire—it may safely be inferred that their professional character has been merged in the social distinction which the use of the designation "esquire" is intended to convey. How very pedantic the authorities entrusted with the preparation of the return in certain localities have been appears from the circumstance that in some counties practitioners holding university degrees are distinguished thereby, but no recognition is vouchsafed to any other diploma or to medical practice as such. The return, such as it is, assigns pre-eminence in respect of medical magistrates to Lancashire with thirteen, followed by Monmouth with eleven; but no significance can be attributed to these figures, and if Mr. Storey moves again for a similar return we hope that he will insist on having the information furnished for which he asks.

ANALYSTS' CERTIFICATES.

A SOMEWHAT interesting case affecting the working of the Adulteration of Food and Drugs Act was recently decided by Mr. Justice Charles. A farmer appealed from the decision of the Birmingham magistrates, who had fined him for having sold milk which was not of a proper quality. The public analyst stated that proper milk should not have less than 3 per cent. fat and that a less proportion than that was owing to fraud. In this instance there was 22 per cent. less than the normal amount, and he gave a certificate embodying these facts. The case for the appellant was that the quality of the milk was due to inferiority of food and the dry season, and it was added, that the analyst had not given a certificate in the form prescribed by the statute. Mr. Justice Charles, in affirming the decision of the magistrate, stated that he felt that a good deal of injustice might be done by the insertion of unauthorised statements in the certificate, and he would acquit the appellant of having abstracted

anything from the milk. We need hardly express our satisfaction at these latter remarks of the learned judge, as surely the duty of an analyst is simply to determine the constituents of the samples submitted to him (generally, in cases like the above, the quantity of added water calculated from an arbitrary standard), to add if he thinks necessary a few observations explanatory of the analytical results, but there his duty ends. An analyst who ventures to state in his report or in the witness-box what does or does not constitute fraud undoubtedly exceeds his proper functions, and in no case more than in that of milk analysis, where, in order to be quite sure that analytical evidence determines adulteration, the results must be based on a somewhat elastic interpretation.

THE PATHOLOGY OF SHOCK.

M. H. ROGER, in an article on Shock in the current number of Dr. Brown-Séquard's *Archives de Physiologie*, sums up the results of his observations in the following terms:—"Nervous shock is the collective series of phenomena resulting from a violent excitation of the nervous system. It is characterised by a series of inhibitory acts, one only of which is constant and indispensable—namely, the arrest of metabolism. Shock is more common in proportion to the development and activity of the nervous system. Circumstances which augment the excitability of the nervous system, such as emotions, distress of mind, and the like, predispose to shock; those which diminish it, such as narcosis and hybernation, prevent its production or render it less serious and persistent. The determining causes of shock may be divided into two groups, according to whether they act like traumatisms and poison directly upon the nervous centres, or whether they act indirectly through the sensory nerves, the sensorial nerves, or the visceral nerves. From the point of view of pathological physiology shock is characterised by a series of dynamic modifications (dynamogeny or inhibition) affecting all the tissues, viscera, and secretions. The capital phenomenon is the arrest of metabolism, as a consequence of which there is a diminution in the quantity of carbonic acid gas in the venous blood, and consecutively to this troubles in calorification, respiration, and circulation occur. The treatment consists in opposing hypothermy and in favouring the production of carbonic acid gas."

SNAKE-BITES.

IN May, 1892, we published an article by Mr. R. P. Banerjie, medical officer to the Pachbadra salt-mines, detailing seven cases of snake-bite which recovered under treatment by strychnine. The fortunate issue of these cases appears to have given to strychnine an importance in dealing with the bites of venomous reptiles that the drug is not proved to possess; and we have just received from Surgeon-Captain J. H. Tull Walsh, who writes from the General Hospital at Calcutta, notes upon Mr. Banerjie's cases which seem to us to deprive them of so much of their accuracy as to render them scientifically worthless as examples of treatment. These notes have appeared in the form of a review of Dr. Mueller's book, "Snake-poison: its Action and Antidote," contributed to the *Indian Medical Gazette* of September, 1893. Mr. Banerjie in our columns attributed the bites in the first three cases to Echis carinata, in the next two to Bungarus cœruleus, in the sixth to Echis carinata again, and in the last case left the snake unnamed, though from the fact that remedies employed in Echis bites were tried, it might have been supposed that the snake had belonged to that class. Both Echis carinata and Bungarus cœruleus are poisonous, and, says Surgeon-Captain Tull Walsh, "if the snakes were rightly identified we must either accept the recoveries as due to the strchynine or suppose the dose of snake poison to have been too small to kill." Seeing in Dr. Mueller's book a reference to Mr. Banerjie's cases, Surgeon-Captain Tull Walsh was led to write to that gentleman and ask if he could see the actual snakes alluded to. They were courteously sent to him, and he has reported upon them as follows, basing the accuracy of the comments upon comparisons with specimens preserved in the Indian Museum at Calcutta. In the first case there was no specimen. The patient said he was bitten by a snake on the right foot (in our columns it was described as the left), and as the snake immediately glided away there can be no certainty as to the species to which it belonged. Surgeon-Captain Neilson, who had charge of the man, reported that he did not believe the injection of strychnine to have had anything to do with the recovery, and Mr. Banerjie does not seem to have been present during the treatment. In the second case the snake was not an Echis, but a harmless tree-snake. In the third it was an Echis only a few days old, and presumably unable, therefore, to inject a deadly dose of poison. In the fourth the snake was not Bungarus cœruleus, but Bungarus ceylonicus. In the fifth Surgeon-Captain Tull Walsh thinks the same error to have been made. In the sixth the Echis was again too small to be held deadly. In the seventh the reptile was again not Echis carinata at all, but probably Vipera lebetina. We cannot find that in his contribution to THE LANCET Mr. Banerjie named the offending snake in this case, though it appears to have been termed an Echis carinata in Dr. Mueller's book. If Mr. Banerjie has been so unfortunate in his zoological diagnoses as Surgeon-Captain Tull Walsh has forcibly stated in the *Indian Medical Gazette*, it is clear that the treatment in his seven cases forms no argument whatever for the efficacy of any treatment in any other cases.

OPERATIVE RELIEF OF ENDOCRANIAL HÆMORRHAGE.

THE two cases published under this title by Dr. W. H. Hudson, of Lafayette, in the last number of the *Annals of Surgery* deserve more than a mere cursory notice, for they are characterised by care and skill in diagnosis and by promptitude and success in the measures which were taken to relieve them. The first case was that of a stout labourer aged twenty, who after being struck on the head with a stick was seen to stagger but not to fall. He walked fifty or sixty yards, sat down and appeared to be dazed. A violent convulsion then took place, and this was soon followed by a second one, which lasted longer than the first and left him very helpless. He was then carried into a house and placed on a bed. When seen about an hour later he was unconscious, with dilated pupils, the right being the larger. The right side of the face and the right arm were paralysed; the corresponding leg could still be moved, but this power was soon lost. The pulse was full, and the rate 50 in the minute. The respiration was only 10 per minute. The pulse soon dropped to 44 and the respirations to 8, and the coma evidently deepened. An operation was carried out at once with strict antiseptic precautions. The usual large flap was reflected, and a portion of the periosteum was found to be detached just behind the coronal suture. There was no other evidence of injury. Trephining was performed at this spot first, a second button of bone being excised just below this and the intervening bridge removed with the forceps. The dura mater was opened and a large quantity, estimated at three or four ounces, of clot removed. This had come from a ruptured branch of the ascending frontal artery, which was with some difficulty secured and ligatured. There was immediate improvement in the condition of the pulse and respiration, and at the end of four days the patient was able to walk about in the room, his speech was better, and the paralysis of the right side was fast disappearing. On the eleventh day after the operation the dressing was replaced by a warm cap for protection, and the patient was discharged,

His speech had become almost natural, and only in fine movements was there any evidence of weakness or clumsiness of the hand. He soon resumed his work as a labourer, and neither feels nor shows any evidence of his accident. The second case recorded in this paper is equally noteworthy. The patient was a schoolboy aged fifteen, who received a severe blow on the head. He fell to the ground at once, but got up and walked some distance. He then fell down and "shook all over." He soon recovered, but then could only walk with difficulty. On the next day he was found to have weakness of the right arm and leg, but not of the face. He suffered from occasional paroxysms of severe pain, especially on the right side of the head; there was also impaired sensibility as regarded touch, pain, and temperature, and of muscular sense as well. He had some difficulty in reading and also in writing. There was no evidence of fracture, but some thickening of the scalp over the left parietal bone just posterior to the upper end of the fissure of Rolando was present. The details of the operation which was performed need not be given; it will be sufficient to say that a small depressed fracture was discovered after the scalp had been reflected, and when this had been elevated a firm clot was found underneath, which was removed. Improvement was steady, but gradual, and recovery was ultimately complete.

COMPANIONSHIP IN CONVALESCENCE.

IT will be generally admitted that the term "illness" possesses a fuller meaning than can be explained by the mere presence of disease. The further stage of convalescence, hopeful and relatively healthy as it is, must also be included in the term. At best it is the approach to health, and its ailing incapacity must be reckoned with and provided for unless we would retard or frustrate the whole process of recovery. Conscious of this fact, some have even argued that a service of attendance is needful at this, as it manifestly is at an earlier, period. For the care of the skilled nurse they would substitute that of an invalid's companion. The office is not unknown to experience. In one or other form it has existed, probably as long as that of the nurse, chiefly as a privilege of moneyed comfort. A novel extension has lately been proposed for the especial benefit of children convalescent fron infectious disease, whose discomfort and isolation have excited the pity of some kind-hearted persons. The suggestion is well intended and wherever feasible might be put in practice. In some cases of partial recovery still requiring supervision for the purpose of its completion such attendance might even be advisable on medical grounds. In such instances a nurse would be the fittest guardian. For the rest, the attentions of a judicious friend would usually afford the social advantages best suited to the needs and wishes of the convalescent. A system of regularly paid service, it appears to us, is in this case hardly called for, though voluntary assistance in aid of the parental care, if rendered with friendly tact, must often bring with it a truly grateful sense of relief.

QUEEN VICTORIA'S VISIT TO ITALY.

HER MAJESTY'S vernal *villeggiatura* will, we understand, be carried out on lines rather different from what was at first contemplated. It will not be confined to Florence, or rather the Florentine suburb of Montughi, but will include a sojourn near Naples in the Palazzo Reale of Capodimonte. This magnificent mansion, occupying a hill which commands an extensive view of the city, and surrounded by a park which is three miles in circumference, artistically laid out, and rich in delightful drives, was placed about a month ago at Her Majesty's disposal by King Humbert. The offer, at first conditionally, has now been finally accepted, and, according to the further announcement of the Roman Court newsman, the Queen is expected to start for Italy at the end of March. Her Majesty's first halt will be at Montughi for a sojourn of some three weeks' duration in one or other of the villas there—most probably the Villa Fabricotti—after which she will make Capodimonta her residence for about ten days. This supplement to the original plan has much to recommend it. The Palazzo Reale, under the Spanish Bourbons who built it, was always a favourite retreat of the Court, and again under the House of Savoy its attractions have been not less appreciated. It enjoys the twofold advantage of mountain-air and sea-breeze, and, if in February and March the preventing winds are apt to be easterly, by the middle of April they become much milder, combining an invigorating freshness with the kindly warmth of a subtropical spring. Her Majesty will, it is expected, proceed from Tuscany to the Neapolitan Riviera by sea, a voyage rendered doubly delightful "in Queen's weather" by the loveliest coast and island scenery, and by the noblest historical associations.

RECOVERY AFTER SWALLOWING A TEASPOONFUL OF AMYL NITRATE.

A CASE of this kind is reported in the *Philadelphia Medical News* by Dr. G. E. Shoemaker of Philadelphia. The patient was a man, sixty years of age and of robust physique, who had taken the dose by mistake. About three minutes afterwards he was found by Dr. Shoemaker with a face moderately flushed, the pulse 112, and complaining only of a little headache. The remedies were several glasses of warm water, two doses of one-eighth of a grain of apomorphine, sulphate of zinc in warm water, and mustard and hot water. In seven minutes from the time of taking the drug copious vomiting of an enormous and undigested meal occurred. Digitalis and brandy were injected hypodermically, and hot bottles were applied to the feet, the patient being slightly livid, the extremities cold, and the respiration slow but regular. Sulphate of strychnine in doses of one-thirtieth of a grain was given frequently. Intermission of the pulse ceased in two hours. Consciousness was never lost, though the man seemed to be drowsy and stupid. Apparently he was saved by the slow absorption of the poison and prompt administration of remedies.

COMPENSATION FOR INSANITARY HOUSES.

VERY important questions have been raised in the West London Police-court. A lady inquired whether she could be compelled to pay rent for an insanitary house. She alleged that the landlord had represented to her that the drains were in perfect order, and it was with this understanding that she had taken the house; nevertheless, there had been typhoid fever in the house and her daughter had died from it. Another lady wished to know whether she could compel her landlord to pay the cost of her removal. Here, again, it was said that the landlord had declared that sanitary work had been done, but when the tenant entered the house she found that the necessary arrangements had not been carried out. The tenant was now obliged to remove so as to allow of the alterations being made, and claimed that compensation for disturbance should be afforded. Mr. Haden Corser thought that both cases should be decided by proceedings in the county court. A shoemaker named Samuel Steggall, living in a basement flat at 3, Ebenezer-buildings, Rotherfield-street, Islington, has just brought a similar though a worse case before the Islington County Court. He claimed £50 damages for injury done through the insanitary condition of the flat he had rented. Mr. George Volaire, an engineer in the employ of the Sanitary Protection Society, testified that the drains ran under the passage which divided the flats, that the main soil-pipe was inside the

building, was made of light cast iron, and so badly manufactured that it could not be properly jointed, and that there was no ventilation for the soil pipe. The house was unfit for human habitation. Dr. Llewelyn added that the stench was abominable and that there was leakage from the roof to the kitchen. Some leakage fell into the cistern, and the same cistern supplied the closet and the drinking-water. Samuel Steggall lived here with his wife and eight children. Soon after occupying this flat his wife had sore-throat; in November she had rheumatic fever, in February typhoid fever, and in April diphtheria. In February five of the children suffered from typhoid fever, and two died after a few days' illness. After such an experience it is not surprising that the tenement was at last abandoned; but the tenant now claimed compensation for the loss and trouble he had experienced. The jury returned a verdict in plaintiff's favour, but allowed only £28 damages. In any case, it is satisfactory that the principle was maintained that damages were due. We confess that we place a higher value on human health and on human life. The worst phase of the question, however, is that unless life is lost, or at least a serious illness endured, it is no easy matter to bring an action. There are an enormous number of houses in a very insanitary condition, but the tenants dare not complain, and it is only when some terrible affliction has occurred that proceedings are taken. The very reverse should be the case; proceedings should be taken before any injury is sustained.

EPILEPSY AND CONTRACTION OF PALMAR FASCIA.

IN a recent number of the *Edinburgh Medical Journal* Mr. A. G. Miller records the case of a patient, a joiner aged thirty-two, who had become subject to fits ten months before he came under observation. He is said to have been "nervous" ever since, five years ago, he was arrested in mistake for someone else; but there were no fits until a dispute took place with his parents, after which he left their house, and worked very hard at his "bench." This, as already said, was about ten months ago, and it was after this spell of hard work that he noticed a contraction in the palm of his right hand, and almost simultaneously the fits began. These were epileptiform in character apparently, commencing with flexion of the fingers of the right hand. Consciousness as a rule was lost, but on one or two occasions the fits had been cut short by forcibly preventing the flexion of the fingers. There was found to be contraction of the palmar fascia of the ring and little fingers of the right hand. The prepuce was also contracted. After the fascia had been stretched, and the prepuce slit up, only one fit occurred during the several months that the patient remained under observation. Mr. Miller regards the case as one of epilepsy, resulting from peripheral irritation; but it is only fair to state that after the operation the patient was under treatment with bromide for some time at least, and the rarity of such a condition arising from such a slight cause makes it very desirable to discover the subsequent history of the patient.

THE GRIMSBY MUNICIPALITY.

OF the municipal elections that have taken place throughout England none, perhaps, are of more importance than those of Grimsby, so far at least as the public health is concerned. In 1892 the authorities at Grimsby had a fair warning that their town was especially exposed to the risk of a cholera epidemic. They so far realised this position that the town councillors themselves undertook a house-to-house inspection, with the result that something like 600 suggestions were made as to desirable improvements in the sanitary condition of the dwellings, courts, yards, and streets they had visited. We will not stop to inquire why, in spite of these reports and the pressing nature of the danger, little or nothing was done. This year the municipality have had more than a warning; cholera has actually broken out, and Grimsby is the place where it commenced and where it has had the greatest number of victims. Grimsby became, to employ the term of the Dresden Cholera International Convention, the *foyer* of the English epidemic. This is not an enviable distinction for the town. Perhaps if more was not done to prevent such a calamity this inactivity was due to the fact that the municipal elections were close at hand and the authorities did not venture to embark on any very bold and sweeping scheme just when their tenure of office was approaching its termination. They, nevertheless, voted for a measure for improving the condition of the sewers and engaged six medical men, whose mission it has been, not merely to attend cholera cases, but also to undertake a second house-to-house inspection. This is how matters stood before the elections, and now the same majority has been re-elected. Thus strengthened by the votes of the ratepayers the members of the town council have no longer any excuse for not giving immediate effect to their promises. What will be done with regard to the recommendations contained in the reports on the house-to-house inspections made in 1892 and this year? The municipality now in office, having itself ordered and organised these inspections, cannot have taken such a measure for no purpose. Already the first reports—those made last year—have been unheeded too long. There is not a shadow of excuse for any further delay. The cases of cholera that have occurred in so many localities this year are simply a warning of what we may expect next year. There will be time enough, however, to effect great sanitary improvements, and these, if promptly and efficaciously carried out, may save us altogether when the period for the recrudescence of cholera comes round. In any case, with cholera or without cholera, the exceptional prevalence of typhoid fever at Grimsby is a proof of the insanitary condition of the town. All England is interested in seeing this state of things abolished. If the cholera scare has momentarily abated, this does not mean that the danger has passed away. If the present golden opportunity is lost, and the necessary sanitary improvements are not effected this winter, the town council will incur a heavy responsibility.

THE TREATMENT OF DIPHTHERIA.

AN excellent *résumé* of our knowledge of the bacteriology of diphtheria is given in the *Semaine Médicale* of Sept. 30th by Dr. Veillon. He assumes that it is now generally accepted as proved that the bacillus first described by Klebs and Löffler is the main causal agent of diphtheria, although other organisms, such as the streptococcus and staphylococcus pyogenes and one resembling morphologically the pneumococcus, are frequently to be found together with the pathogenic bacillus. As a result of his investigations Dr. Veillon maintains that the treatment must necessarily be complicated, for we have to deal not only with the local effects of the Klebs-Löffler bacillus, but also with the constitutional effects produced by the toxines evolved, and the lesions produced by secondary infections. Various antiseptic agents have been proposed in order to destroy the germ—corrosive sublimate, phenic acid, &c. The most successful seems to have been the first mentioned. Great difficulty has always been found in reaching the parasite, as it is protected by the false membrane. Dr. Veillon recommends removal of the pseudo-membrane by curved forceps having cotton-wool wrapped round the points. If, however, this should produce much bleeding he would advise sprays and irrigations only. The applications should be made to the throat very frequently—at least every hour. With regard to the second point—namely, to combat as far as possible the toxic effects—Dr. Veillon is of opinion that swabbing the throat and frequent

irrigations are of great value; the poison is soluble in water, and much of it may be thus swept away. Observers have pointed out that the toxines are less active in an acid medium; therefore dilute acids, such as lactic and tartaric, may also be used as sprays. Dr. Veillon suggests a saturated solution of boric acid, to which 1 per cent. of lactic acid is added. Our present knowledge helps us but little with regard to neutralising the toxine already absorbed. The numerous laboratory experiments which are now being made by Behring, Kitasato, and Martin may eventually bring about the desired end. A method of attenuating the diphtheritic virus seems to have been successfully accomplished by the first two observers named above, but the investigators have not arrived at that stage when it may be applied to man. Preventive inoculation would seem destined to hold a vastly more important place in the therapeutics of the future than it does at present, but some time must yet elapse before the much-wished-for methods can be definitely formulated.

MANCHESTER AND SALFORD LADIES' HEALTH SOCIETY.

As useful and as friendly in its purpose as its methods are orderly, the Ladies' Health Society of Manchester and Salford has established a precedent in practical sanitation which we trust will commend itself to the many in every city who share the wholesome views and the humane enthusiasm of its members. The Society is affiliated to the sanitary association to which we directed attention four years ago (Sept. 28th, 1889), and its character and work may be understood from the details recently published in its report for 1892. It consists of an organisation of ladies working in union with female home-visitors belonging to the labouring classes for the promotion by every available means of its chosen aims. These are as various in kind as they are united in purpose. Home hygiene in all its applications, clothing and feeding where needful, the care of children, the detection of nuisances, nursing in sickness, country holidays—the Society provides for them all. It has endeavoured, moreover, and not without success, to discharge these numerous, and often delicate, duties with as little as possible of an officious spirit. The acceptance with which it has laboured may be recognised by the fact of its general popularity among the class whom it seeks especially to benefit. It is equally significant in this connexion that the corporations of both Manchester and Salford have been willing to avail themselves of its services in making their sanitary arrangements. During the year its agents have paid some 8649 visits and have drawn up reports of population, cleanliness or the reverse, sickness, death-rate, &c., in the houses visited. To have carried on this kind of work and done it well during thirty-two years is the Society's record. It is one, we repeat, which may well stimulate the zeal of social reformers elsewhere, to whom a like success in the work must also come if their energies are guided by the same intelligence and, above all, by the same friendly tact.

USES OF THE OPHTHALMOSCOPE.

IN the *Journal of the American Medical Association* a paper appeared recently by Mr. Edward P. Morrow which gives very practical emphasis to the plea urged by some for a routine examination of the eyes in all obscure cases. Mr. Morrow relates two cases in neither of which had a diagnosis—or at least a correct diagnosis—been made until the eyes were examined with the ophthalmoscope. The first case was that of a lad aged seventeen who had had a fall from a bicycle about six months before he came under observation. The lad struck his head and remained temporarily unconscious. He was afterwards troubled with weakness, more or less general, and at intervals with dizziness when walking. He subsequently had occasional vomiting, but never sufficiently to suggest that he might be suffering from a cerebral tumour. He then began to complain of his sight and Mr. Morrow was asked to examine his eyes. He found him to be suffering from intense optic neuritis with hæmorrhage in both eyes. He died a few weeks after this without any further sign than some epileptiform convulsions. At the necropsy a large glioma was found in the temporo-sphenoidal lobe on the right side. The second case was that of a young man aged nineteen, but his symptoms were such as to suggest a diagnosis long before the eyes were examined, for he first complained of giddiness and unsteadiness in walking. Subsequently he had also attacks of vomiting, and sank into a lethargic state. The discs at the time were only hyperæmic, but a few weeks later they were much swollen and there were numerous hæmorrhages. He wasted away gradually and at last died suddenly. At the necropsy a glomia was found on the upper surface of the cerebellum, covering the superior vermiform process and extending about equally over each lateral lobe. These cases are interesting in themselves, and they certainly point a very strong moral—viz., the duty of examining the eyes in all obscure cases, especially if there should be occasional giddiness or vomiting.

IN RE MACDONALD, SONS, AND COMPANY LIMITED.

THE case of Macdonald, Sons, and Company, Limited, which came before the Court of Appeal on Tuesday, interests our readers not mainly because of the points of company law which it raise and solves, but because of the fact that these questions were raised out of transactions in which nine registered practitioners were involved. So far as they are material to our present purpose the facts of the case were shortly these. The above-named company was formed for the purpose of acquiring and carrying on the business of two persons—medicated wine manufacturers. The secretary of the company opened negotiations with various medical men in order to induce them to prescribe and recommend to their patients and tradesmen these medicated wines, promising to each medical practitioner who undertook thus to recommend the company's wares a fully paid up founder's share of £25. Nine medical men each accepted a share upon the conditions mentioned. In the course of a few months the company was ordered to be wound up, and the liquidator placed the recipients of the founder's shares on the list of contributories. The nine gentlemen then applied to the court to remove their names from such list. The judge, Mr. Justice Vaughan Williams, held that they were not liable to pay the cash value of their shares, but marked his disapprobation of their conduct by refusing them costs as against the Official Receiver. His lordship said he "could not part from the case without saying that it was a sad thing that members of a learned profession should have consented to take shares on these terms. It might be that the individual doctors thought well of the wares of this company, and that in praising them they acted as their consciences dictated, but to take shares in consideration of praising the wares of the company was very much like taking bribes." From this decision the Official Receiver appealed. It was, however, unanimously affirmed by Lords Justices Lindley, Smith, and Davey. The first-named intimated that as to the morality or immorality of the transactions in which the medical men became involved he would express no opinion. These were matters, said his lordship, for the General Medical Council. Undoubtedly they are. Courts of law do not enforce rules of professional conduct, and in this particular case the transactions are fit matters for inquiry by the domestic forum—the General Medical Council. This tribunal is entrusted by the Legislature with disciplinary powers and duties with the object of maintaining a proper

standard of professional honour, alike in the interests of a great profession and of the public whose well-being so largely depends upon the honour and integrity of its medical men. The General Medical Council may be trusted to deal justly and seriously with a question which the judges of the Court of Appeal say is one for it to settle. The question is one which involves the very highest interests of the profession, and the gentlemen concerned must feel anxious to offer any explanation they have to give of their action in the matter.

"THE MEDICAL BATTERY COMPANY, LIMITED."

MR. C. B. HARNESS has been arrested, on a warrant issued by Mr. Hannay from the Marlborough-street Police-court, on a charge of conspiring to defraud. He was brought up at the police-court on Wednesday last and remanded on bail for a week. Mr. James Montgomery McCully, stated to be a physician, was also brought up at the same time and was remanded in like manner. We do not find any person of that name on the Medical Register for 1893.

DR. WILLIAM OGLE'S SUCCESSOR.

THE profession will receive with much satisfaction the announcement that the vacancy caused by the retirement of Dr. William Ogle from the post of Superintendent of the Statistical Department of the Registrar-General's Office, Somerset House, has been filled by the appointment of Dr. Tatham of Manchester. It would be difficult to fix upon a member of the profession more worthy to succeed Dr. Ogle in the discharge of the duties he has so efficiently fulfilled. The value of the services of Dr. Tatham to medical and vital statistics is acknowledged on all hands. His long tenure of the health officership of Salford, and subsequently of Manchester—posts which he did so much to render famous in the eyes of statisticians—would of itself mark him out as a worthy successor of Simon and Ogle. We have great pleasure in adding our congratulations to those of the numerous friends of Dr. Tatham on his new appointment.

THE SEVENTH INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY.

THE final meeting of the organising committee was held at 20, Hanover-square, on Nov. 2nd for the purpose of receiving the balance-sheet at the hands of the finance committee. Sir Douglas Galton occupied the chair and the proceedings were marked throughout by great unanimity. The finance committee's report announced the welcome intelligence that after paying all outstanding liabilities there would be a surplus of some £650, and the main business of the meeting was the apportionment of this surplus, which it was resolved should be carried out in accordance with the recommendation of the finance committee. To the British Institute of Preventive Medicine, to the Sanitary Institute, and to the Committee (appointed by the Congress) for investigating the mental and physicial condition of children, three-fourths of the surplus were allotted (one-fourth to each body), while the remaining fourth was equally divided between the Society of Medical Officers of Health, the National Health Society, and the Committee for furthering (in England) the interests of the Congress to be held at Budapest in 1894. The balance-sheet showed that the receipts from all sources had amounted to £8335, and that the expenditure (up to Aug. 15th, 1893) had been £7618. The chief items of expenditure were: stationery and printing, £3750; salaries and honoraria, £1428; general and office expenses, £1273; postage and telegrams, £420; advertising, £393; rent and collectors' percentage, £350. It was resolved that when the few outstanding liabilities had been discharged a final and properly audited balance-sheet should be published, and that Surgeon-General Cornish, C.I.E., Dr. Moline, the financial secretary, and Dr. Poore should be empowered to distribute the balance in accordance with the resolution of the committee. It was resolved that the finance committee, "with power to add to their number," should be constituted a committee for furthering the interests of the Budapest Congress. Dr. Poore announced that handsomely bound copies of the Transactions had been forwarded to the Queen, the Prince of Wales, the Duchess of Albany, the native Indian Princes who had acted as Vice-Presidents of the Congress, and all the executive officers of the Congress. The Prince of Wales, as President of the Congress, had personally forwarded the Transactions to the Queen, and Her Majesty had forwarded the following gracious reply: "To His Royal Highness the Prince of Wales, K.G.—Sir,—I am commanded by the Queen to thank your Royal Highness and the members of the Seventh International Congress of Hygiene and Demography for the copy of the Transactions of the Congress, which Her Majesty has accepted with much pleasure.—I have the honour to be, Sir, your Royal Highness's most obedient humble servant, HENRY F. PONSONBY."

LESION OF THE CAUDA EQUINA.

A VERY interesting case of this lesion is reported by Dr. J. E. Shaw and Mr. J. Paul Bush in the *Bristol Medico-Chirurgical Journal* of September last. Very few cases of lesion of the cauda equina have been observed and subjected to treatment by operation, and the writers have therefore done good service by recording this case fully, and it is to be hoped that they will be able to still further watch their patient. The latter was a man thirty years of age who eleven years previously sustained a fall, wrenching the lower part of his back. He dated his illness from that time, but stated that two or three years before he had felt slight dull pains in the popliteal spaces and the outer sides of his legs and heels. After the accident he experienced gnawing pains in the backs of the thighs. This was followed by increasing weakness of his legs. About the same time he noticed anæsthesia, which began, according to his account, in the backs of the thighs, and spread upwards and downwards; but, as Dr. Shaw points out, in all these cases, when any one of the sacral nerves is affected those below it are also implicated, and he is of opinion, therefore, that this patient's coccygeal region was also anæsthetic at the same time as, if not before, the backs of the thighs. Contrary to what might have been expected, the state of the sphincters of the bladder and rectum was such that there was retention and not incontinence of their contents. Electricity gave in a varying but not complete degree the "reaction of degeneration." The right knee-jerk was normal and the left slightly exaggerated. On the ball of the right toe there was a callosity with a narrow ulcer extending inwards about three-fifths of an inch, but not reaching down to the bone. A singular point about the case was that the penis and scrotum were analgesic and not anæsthetic. The patient had nocturnal erections and emissions about once a month. At the operation Mr. Bush found a swelling in the middle line over the lower spinous processes. This was fully incised and a rounded cavity exposed, this cavity being covered in with a thin shell of bone. The spine of the fourth lumbar vertebra was found to be pushed backwards; it was removed, together with the laminæ on either side. The fifth lumbar spine and laminæ appeared to have been entirely absorbed; the cavity, which was evidently the dilated spinal canal, contained a solid mass, which was removed. The nerves forming the cauda equina could not be clearly defined, as they were pressed forwards against the posterior surface of the bodies of the vertebra, and covered over by strong fibrous tissue. The patient rallied quickly from the operation, which was performed on March 16th. He greatly improved in general condition, the pain became much less, and there was increased power of movement in the paretic

muscles of the legs. On June 30th he was reported to be going on well. The mass from the spinal cord showed under the microscope well-organised blood-clot with some fibrous tissue, but there was no other distinctive structure.

MEDICAL REGISTRATION.

OUR readers will doubtless be glad to have their attention directed to the notice issued annually by the registrar of the General Medical Council, a copy of which will be found in our advertisement columns. Much inconvenience, amounting in some cases even to erasure from the Register, has resulted to medical practitioners from not bearing in mind the warning conveyed by this announcement.

COMBINED SYRINGOMYELIA AND ACROMEGALY

IN the *New York Medical Record* of Sept. 23rd last Dr. Frederick Peterson gives the particulars of a case in which the symptoms of both these recently described diseases seem to have been present. The patient was a woman of thirty-five, who sought advice on account of numbness, weakness, and the like, which had come on in the course of the previous year. On examination her face was found to be large and puffy, the lower jaw especially being enlarged. The hands and feet also were large and stumpy. Both the patient and her sister were aware that these parts had been undergoing enlargement for at least a year. On the left hand were numerous abrasions and small ulcers. As regards movements, those of the fingers were slow and feeble. She was unable to lift the hands to the head on account of weakness of the shoulder muscles. There was also some stiffness in the legs and an especially weak feeling in the left knee, slight ptosis of both upper lids and rotatory nystagmus in each eye. The characteristic sensory loss was present in the left arm, sensibility to pain and temperature being abolished, while that for touches was only slightly impaired. A curious condition was present in the left leg. Sensibility for touch, pain and warmth were unimpaired and natural; cold, however, either moderate or great, produced a pain which she compared to burning, and which invariably caused her to move her leg in alarm. The visual fields were normal, and the knee-jerks were present, the left, however, being impaired. The case is certainly an interesting one. It is peculiarly suggestive with reference to the supposed connexion of the pituitary gland and acromegaly on the hand, and in regard to the connexion between the central canal of the cord and the embryonic intestinal tract on the other. If these hypotheses are correct it is not unlikely that cases similar to Dr. Peterson's may be found to be not so uncommon as might at first be supposed.

COMPETITIVE EXAMINATIONS FOR THE ARMY.

WE may usefully direct attention to some very common-sense remarks in an article by Mr. W. B. Scoones in the current number of the *Nineteenth Century*, on the entire neglect of physical, as compared with mental, qualifications in the competitive examination of candidates for the army. We have previously called attention to this subject. It has always seemed to us that of all the occupations in the world that of the soldier required the possession of physical qualifications, but in a competitive examination for entrance to Woolwich or Sandhurst physical qualities count for nothing. A young man who has distinguished himself at a public school in games and exercises, and who has a vigorous well-knit frame and acute sense organs, may find himself outstripped by a "bookish" candidate, whose qualifications may merely consist in his being endowed with keen receptive faculties and a capacity for being crammed, but whose physical qualities are perhaps only just sufficient to pass the standard laid down for the medical examination. This is surely an anomaly. In both the naval and military services manliness and vigorous health should count for a great deal, for energy, enterprise, and sound prompt judgment of the kind required for these services, are usually the concomitants of health and strength. Competitive examinations should be competitive all round, and the possessor of superior physical endowments should reap some advantage from them in the way of marks against another altogether his inferior in this respect. Of course the literary part of the examination could remain and count as at present, but it should not count everything. Even supposing that a competitive examination is a sure method of testing "brains" and scholarship—which we doubt, for the power of passing examinations is, after all, but a poor way of gauging the mental capacity, and affords very little assurance of what this will become later in life, and next to none at all of character—still, brains are a gift, like physique. We cannot by thought add to our stature. The man gifted with a fine physique should count something for it when he brings his gift to the altar of his country's service. We question whether the exact plan of gymnastic competition laid down by Mr. Scoones will be found to be the best, or even a practicable one, but that is a matter of detail. Meanwhile, as the *Saturday Review* says, his proposal would at least remove the present absurdity that, if A is a very little worse than B in matters most of which are at best facultative to the soldier, and infinitely his superior in those which are for the soldier all but imperative, his superiority will not be allowed to have even a voice in his fate, while his inferiority will exclude him inevitably from the service of his country.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Dr. Koeppen will deliver the lectures on Forensic Psychiatry in place of Professor Siemerling, who has accepted a chair in the University of Tubingen.—Professor Fraentzel, whose name is familiar in association with that of Professor Koch in reference to the creasote treatment of phthisis, and who is one of the most senior of the Charité physicians, has been obliged to give up both his clinical and his lecture work on account of the state of his health.

Bonn.—Professor Gustav Veit has been granted a patent of nobility. The other Prussian medical men who have been ennobled are mostly surgeons—viz., Langenbeck, Esmarch, Volkmann, Bardleben, and Bramann, Frerichs being a physician. Professor Veit is a gynæcologist.

Iceland.—A movement has been set on foot for the establishment of a university in the island.

Innsbrück.—Dr. Georg Juffinger has been appointed Extraordinary Professor of Laryngology and Otology.

Kharkoff.—Dr. Shiltoff has been promoted to the Ordinary Professorship of Special Pathology and Therapeutics.—Dr. Bogomoloff of St. Petersburg has been appointed Extraordinary Professor of Medical Chemistry.

Moscow.—Mr. Mitropolski has been promoted to be Extraordinary Professor of Special Pathology and Therapeutics.

Prague (German University).—Dr. Herrnheiser has been recognised as *privat-docent* in Ophthalmology.

Turieff (or *Dorpat*).—Dr. A. Gubareff of Moscow has been appointed to succeed Professor Kustner in the chair of Midwifery and Gynæcology.

Vienna.—Dr. Heitler has been recommended to the Government for promotion to an Extraordinary Professorship.—Dr. J. von Wagner of Gratz has been appointed Professor of Mental Diseases and Neurology.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Moritz Meyer of Berlin at the age of seventy-two. His well-known work on "Electricity and its Employment in Practical Medicine" was published in 1854 and was the result of a

prize competition offered by the University of Ghent, Duchenne being awarded the first prize and Meyer the second.—Professor Ernst Frerichs, formerly of Marburg, but for the last five years of Wiesbaden. He was a nephew of the well-known Berlin professor, Theodor von Frerichs.—Dr. Alexander von Hippius, a Moscow physician, well known in connexion with diseases of children.—Dr. Julius Badt, Sanitary Councillor of Berlin.—Dr. W. G. Stebbins, acting physician to the Boston City Hospital.

IT is always a matter of interest to notice the works that are from time to time brought out by members of the medical profession upon scientific and literary subjects outside those of their own immediate profession, and we would consequently call attention to a new book on "The Currencies of the Hindu States of Rajputana," by a member of the Indian Medical Service, Surgeon-Captain W. W. Webb, now stationed at Netley. It is clear that the compilation of a work of this kind involves a large amount of care and trouble, and to those who are interested in currency questions and numismatic studies, or are collectors of coins, the book, which is well illustrated, will prove both useful and interesting. Surgeon-Captain Webb devoted a good deal of time to the subject whilst serving in India, and on his return from that country placed his MS. at the disposal of the Secretary of State for India. Only a limited number of copies have, we believe, been printed, and the Queen has been graciously pleased to accept a copy at the hands of Sir Henry Ponsonby.

AT the close of the financial year on the 31st ult. the Hospital Sunday collection in London for the present year is stated to amount to £39,300, as compared with £41,500 in 1892. It is to be regretted that the exertions of the friends of this movement have been less successful this twelvemonth than in that which preceded it. No doubt more than one reason might be adduced in explanation of this result. But, whatever the cause, it would be a matter of deep regret if interest in the well-being of the afflicted poor were to be allowed to suffer any diminution in time to come.

A SERIES of six lectures on the Sanitation of Industries and Occupations is now being delivered at the Parkes Museum, Margaret-street. The first was given on the 2nd inst. by Dr. Newsholme, on Occupation and Mortality. The others will follow respectively on the following dates—viz., Nov. 16th, 23rd, 30th, and Dec. 8th and 14th, and will deal with Mineral and Metallic Dusts, Textile Manufactures, Metallic Poisons, and the Manufacture of Alkalies and Acids. The lecturers are Dr. Arlidge, Dr. Sinclair White, Professor T. Oliver, and Professor Watson Smith.

AT a meeting of the Court of Governors of the Victoria University on the 2nd inst. the degrees of M.B. and Ch.B. were conferred *in absentiâ* on Edward Spencer, now resident in Australia. The following gentlemen were appointed lecturers on the undermentioned subjects comprised in the medical curriculum: Operative Surgery, F. A. Southam, M.A., F.R.C.S.; Practical Surgery, G. A. Wright, M.B., F.R.C.S.; Forensic Medicine, C. M. Chadwick, M.A., M.D.; and Botany, H. Wager.

THE next half-yearly dinner of the Aberdeen University Club, London, will be held on Wednesday, the 15th inst., at the Holborn Restaurant, at 7.30 P.M., Dr. R. Farquharson, M.P., in the chair.

THE annual dinner of the Harveian Society of London will be held at the Criterion Restaurant on Nov. 23rd, at 7 P.M. precisely, Mr. Malcolm Morris, President, in the chair.

AMONG the gentlemen who have been recommended as office-bearers of the Royal Society at the anniversary meeting on the 30th inst. are the following members of the medical profession: as secretaries, Professor Michael Foster and Sir Joseph Lister (foreign); and as members of the council, Professor Isaac B. Balfour, Sir John Kirk, and Professor Burdon Sanderson.

THE MEDICAL BUREAU AT THE CHICAGO EXHIBITION.

BY H. W. GENTLES, M.D., C.M.,
SUPERINTENDENT OF THE AMBULANCE SERVICE AT THE WORLD'S COLUMBIAN EXPOSITION.

SOME idea of the immensity of the American Exhibition, of the number of direct *employés*, and of the number of casual visitors will be gained by a few notes upon the work of the Medical Bureau. It will be seen at once that the swamp by Lake Michigan has been transformed into a regular city—indeed, into an over-populated city—by the Exhibition buildings, and that all the steps, preventive and curative, that an over-populated city might look to its medical men to take on its behalf have been demanded of the medical staff attached to the grounds at Jackson Park. The work may be divided into three branches: the work in the hospital, the out-patient visiting, and the ambulance work.

The hospital is situated in a somewhat unpretentious block called the "Service Building," and contains three general wards—one for females and two for males—and a small obstetric ward of three beds; there are thirty-three beds in all. There are two separate commodious waiting-rooms for male and female patients and a large reception-room for their friends. A handy consulting-room, with a spacious and well-lighted operating-chamber, complete the equipment.

Four visiting physicians—Drs. Allport, Edgerley, Plummer, and Yeager,—who attend the hospital at regular hours, look after the welfare of the in-patients; while Dr. Hillmantel, the senior physician, who has charge of the health of the whole permanent population of the grounds, assists his colleague, Dr. Raughley, in the visiting. The resident physicians are responsible for the treatment of cases which may occur during the night. No cases are kept in the hospital overnight unless they are such that removal would prejudice their favourable termination. The nursing staff is drawn from the best training schools of America, one might almost say the world, for a number of the nurses are from Europe. The following table gives an analysis of the cases that received hospital treatment between May 1st and Sept. 30th inclusive:—

TABLE I.

Date.	New Cases.		Old Cases.		Total.
	Medical Cases.	Surgical Cases.	Medical Cases.	Surgical Cases.	
May	988	489	474	670	2621
June.....	1137	498	533	798	2966
July	1447	513	354	978	3292
August	1631	443	406	689	3169
September.....	1641	459	301	586	2987
	6844	2402	2068	3721	15,035

With regard to the ambulance work I shall go into more detail, as it more directly concerns myself. The ambulance system has been organised in a way never before attempted in Chicago, and probably never at any exhibition. The credit of this is due largely to Captain J. R. Jenkins, who has established a most complete fire and patrol alarm service. There are 200 patrol boxes scattered over the grounds, and each contains a telephone. Each guard—the amateur policemen of the Exhibition are known as "Columbian guards"—has a key, and on seeing an accident he runs to the nearest patrol box, opens it and pulls a lever; this registers the box number at the central office. He then telephones his desire for an ambulance and any further particulars he thinks necessary. The message is transmitted from the central

office to the nearest ambulance station; the ambulance is sent to the box, where the guard takes charge of it. There are now three ambulance stations, and it only takes from twelve to twenty seconds to harness the horses upon a call being received. Some idea of the work that the ambulance corps has done may be obtained from consideration of these figures: from the opening day to Sept. 30th 2471 calls have been answered, either within or without the grounds. The full complement of the ambulance force is the sergeant, twenty-five men and nine drivers. There are four waggons. Three attendants and one driver make up the number of an ambulance waggon, and one waggon is on duty for twenty-four hours at a time. As the American waggons—having rigid springs and requiring a pair of horses—are very heavy and cumbersome, I went to Sir Henry Wood, Secretary of the British Commission, and the result of the interview was that the St. John Ambulance Association was asked to send a waggon to the Exhibition. When the waggon arrived it excited considerable comment; for it was, I believe, the only vehicle for the purpose running on rubber tyres in America. I sincerely hope that it will be allowed to remain in Chicago to serve as a model for the American builders. Between July 18th and Sept. 30th this has answered 609 calls. When the hot weather set in ice was kept in the stations and no ambulance was sent out without having an ice-cap ready filled for use. An emergency bag and splints are also despatched with each waggon in convenient form. The St. John Ambulance Association have stationed in the Manufactures Building a representative, whose booth is lighted by electric light and connected with the hospital by telephone. He is supplied with an Ashford litter, and is able to look after any case occurring in the building. Two hundred people have been relieved by him. When a particular attraction draws together a large crowd red cross flags indicate the patrol boxes, at each of which two or more attendants are stationed with an Ashford litter or invalid chair. Anyone requiring their services is quickly carried to the outskirts of the crowd or through an adjacent building to the quiet side of it, and the ambulance officials are then instructed by telephone where the case is to be found. The following is a synopsis of the cases that have received treatment from the opening of the Exhibition up to Sept. 24th—1878 cases in all:—

1. *Surgical and Emergency Cases.*

Abrasions, 9; contusions, 125; burns and scalds, 28; drowning (one death), 3; inhalation of smoke and heated air, 2; foreign body in pharynx, 1; foreign body in eye, 2; foreign body in throat, 1; injury to eye, 1; dislocations, 10 (arm, 1; shoulder, 4; toe, 2; knee, 1; elbow, 2); fractures, 41 (skull, 3; jaw, 3; nose (compound), 1; zygoma, 1; malar, 1; spine, 1; clavicle, 2; humerus, 3; arm, 3; finger (compound), 2; wrist, 3; rib, 1; femur, 8; tibia (compound), 2; tibia, 1; leg, 6); sprains, 79 (leg, ankle, and foot, 60; knee, 5; neck, 1; arm, 1; wrist, 4; internal, 1; muscle, 1; elbow, 2; finger, 1; back, 4); rupture of varicose vein, 3; ulceration of knee, 1. There were also 6 immediate deaths from gross injury.

Of 125 wounds the following table gives an analysis:—

TABLE II.

Seat of injury.	Punctured wound.	Lacerated wound.	Incised wound.	Contused wound.	Infected wound.	Not stated.
Head and face	—	18	5	—	—	33*
Hand and fingers ..	1	13	11	5	—	—
Hip	—	1	—	—	—	—
Not stated	—	1	—	—	—	2
Leg and foot	17	10	1	2	—	—
Knee	1	—	—	—	—	—
Arm	—	—	2	—	—	—
Scrotum	—	1	—	—	—	—
Total	19	44	19	7	1	35

* Mostly scalp.

2. *Medical and General Cases.*

Chill, 9; diphtheria, 2 (1 doubtful); fever, 41; measles, 10; malaria, 19; pneumonia, 4; pleurisy, 4; scarlet fever, 1; typhoid fever, 16; influenza, 2; rheumatism, 23; tonsillitis, 5; asthma, 2; bronchitis, 3; pharyngitis, 3; vertigo, 1; migraine, 1; headache, 40; toothache, 2; sunstroke, 3; exhaustion owing to insolation, 345; nervous prostration, 1; neuralgia, 9; paralysis and paresis, 3; hemiplegia, 1; meningitis (?), 1; insanity, with aphasia (?), 1; shock, 8; epilepsy, 45; convulsions, 3; cerebral congestion, 2; concussion of brain, 1; apoplexy (both fatal), 2; hysteria, 44; pregnancy, 1; abortion and miscarriage, 7; amenorrhœa, 2; chancroid, 1; dysmenorrhœa, 11; metrorrhagia, 9; mammitis, 1; ovaritis, 3, prolapsus uteri, 1; epididymitis, 1; orchitis, 2; conjunctivitis, 1; appendicitis, 1; perityphlitis, 1; pelvic cellulitis, 1; "biliousness," 38; constipation, 5; cholera morbus, 17; colic and cramps, 138; colic, hepatic, 6; colic, uterine, 3; colic, renal, 5; hernia (form not stated), 1; diarrhœa, 107; dysentery, 10; enteritis, 2; gastro-enteritis, 8; gastritis, acute and chronic, 6; gastralgia, 12; gastric catarrh, 2; indigestion, acute, 48; nausea, 54; poisoning (laudanum, 1; ivy, 2; morphine, 2), 5; sea-sickness, 9; vomiting, 3; angina pectoris, 4; neuralgia of heart, 1; heart disease (no more definite diagnosis made), 10; syncope, 211; palpitation, 2; hæmorrhoids, 2; hæmoptysis, 5; epistaxis, 1; hæmorrhage (no site mentioned), 2; alcoholism, 7; dermatitis, 1; scabies, 2; syphilis, 1; pain of knee, 1; spinal pain, 1; myalgia, 1; lumbago, 6; vesical calculus, 1; cystitis, 1; retention of urine, 1; furuncle, 3; felon of thumb, 1; spasm of trapezius muscle, 1.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A MEETING of the Committee of the Association of Fellows of the Royal College of Surgeons of England was held at 5 P.M. on Nov. 1st at 25, Grosvenor-street. Dr. Robert Barnes took the chair in the unavoidable absence of the President, Mr. George Pollock.

The minutes of the last meeting were read and confirmed. The Hon. Secretary stated that the business of the meeting was to consider a draft report of the sub-committee, which had been appointed by the committee in July last to draw up a scheme for separate meetings of the Fellows at the Royal College of Surgeons, and, at the same time, to consider what alterations ought to be made in the Charters and by-laws of the College in the interests of the Fellows. The draft report of the sub-committee was then read and discussed clause by clause. Some additional clauses were introduced and a few verbal emendations were made. As amended the report was passed unanimously, and a copy thereof was ordered to be forwarded to the Secretary of the College for the purpose of being laid before the Council at its next meeting. A copy was also directed to be sent to each member of the Association of Fellows and to the medical journals. The report is as follows:—

Report of the Committee of the Association of Fellows of the Royal College of Surgeons of England on meetings of the Fellows and on amendments of the Charters and by-laws of the College.

1. That the Fellows of the College shall be summoned by the Council to meet not less than twice a year.

2. That one of these meetings shall be held on the day of the annual election to the Council.

3. That other meetings of the Fellows may be called either by the Council or on a requisition of twenty Fellows of the College.

4. That at a meeting of the Fellows twenty-five shall constitute a quorum.

5. That the subjects to be considered at the meetings shall be—(*a*) such matters as may be referred to the meetings by the Council; and (*b*) motions introduced by the Fellows of which due notice has been given.

6. That printed agenda shall be issued to the Fellows, and that minutes of the meetings shall be kept.

7. That the Secretary or Assistant Secretary of the College shall act as the clerk to the meetings and be responsible for issuing the agenda and keeping the minutes.

8. That it shall be lawful for the Fellows in meeting assembled to appoint an annual committee or other committees to consider and report on subjects referred to them, and to confer when necessary with the Council of the College.

9. That the President of the College shall be elected by the Fellows from among the past or present members of the Council at the meeting in July.

10. That the suggested meetings of the Fellows of the College shall in no way interfere with or supersede the annual meeting of Fellows and Members, at which the annual report from the Council is presented and discussed.

11. That no alteration in the constitution and external relations of the College shall be effected without the consent of the Fellows convened to discuss such alterations.

12. That the term of office of members of Council shall e six years, and that the system of substitute members be abolished.

13. That members of Council shall not be eligible for re-election after serving for two consecutive periods of six years.

14. That the voting papers for the election of members of Council shall be sent out to all the Fellows at the same time as the list of candidates, and be received at the College up to the close of the poll.

15. That the Council shall have power to increase the number of the members of the Court of Examiners from ten, as now limited, to any number not exceeding twenty.

16. That the meetings of the Fellows, the election of the President by the Fellows, the six years term of office of members of Council, and the annual meeting of Fellows and Members for the reception and discussion of the report of the Council shall be provided for in a new Charter, and that the conduct of the meetings at the College and other matters referred to in the above clauses shall be regulated by by-law.

17. That the question whether the chairman at the meetings of Fellows shall be the President of the College or a chairman especially elected by the Fellows shall be left undecided for the present.

A discussion then arose concerning the action which should be taken by the Association at the annual meeting of Fellows and Members of the College on the following day. It was understood that up to that time no resolution had been received at the College on behalf of the Association of Members. Ultimately it was unanimously agreed that the following resolution should be forwarded to the Secretary of the College for the purpose of discussion at the meeting: "That if separate meetings of Fellows be summoned regularly by the Council for consultative purposes it is desirable that they should not supersede or interfere with the annual meeting of Fellows and Members, at which the annual report of the Council is presented and discussed."

Mr. Keetley undertook to propose and Mr. Norton to second the resolution.

This concluded the business of the meeting, and the committee then adjourned.

EPSOM COLLEGE.

AT an extraordinary general meeting held on Thursday, Nov. 2nd, the governors of the Royal Medical Benevolent College authorised an application to Parliament for a Bill to vary and extend some of the provisions of the Act at present in force. If the desired amending Act is granted, there is every reason to hope that the institution will reach the highest pinnacle of success and that the college will one day rank amongst the great public schools of England. True, at the present time both the benevolent and scholastic sides of the institution are in a very flourishing condition, but there is room for advancement, and the existing Act of Parliament is at present the chief obstacle. For several years the council, and those who have taken more than a superficial interest in the institution, have felt that two or three things required radically changing, but these matters had to be postponed indefinitely—in fact, until the time arrived when it would be politic to apply for an amending Act. This time, evidently, has come at last, in consequence of a judicial opinion deciding that the college governors do not possess the power to admit to their schools boys other than the sons of medical men. It may occur to governors that, as such boys have been educated at the college for some years, the council need not have moved in the matter unless an application for an injunction to restrain them from admitting these boys had been made; but it must be remembered that the council have been entrusted with a very responsible charge, and they should not be in the slightest doubt as to whether a course is or is not *ultra vires*. When, consequently, the opinion was expressed against the rule in force there was only one course open to the council—troublesome and expensive though it might be—namely, to apply to Parliament for power to do what everyone will acknowledge must be for the well-being of the college. The chief powers asked for are: (1) to admit boys other than the sons of medical men into the college; (2) to abolish the almshouses at Epsom, but without prejudice to the rights of existing resident pensioners; and (3) to change the name of the institution at a future date should the governors for the time being deem it desirable to do so.

It is to be regretted that the phraseology of the present Act regarding the admission of boys is so ambiguous, although to those who have been intimately connected with the college since its foundation and were acquainted with its esteemed founder there can be no particle of doubt as to what was Mr. Propert's idea in this respect. Very soon after the proposal to found the institution had been approved a rumour that the college would be a class school was circulated, in consequence of which we wrote in a leading article on Nov. 29th, 1851: "It has gone abroad as an objection to the scheme that the school will not only be exclusively for the sons of medical men but for those sons only who are intended for the profession. The idea is monstrous. We have authority for stating that the school will not be confined to the sons of medical men, but the foundation will be exclusively for the orphans and sons of distressed members of our own profession, whatever be their future destination." The old-fashioned belief in the necessity of almshouses is fast dying out, and it is now generally admitted that it is a truer form of charity to give out-door pensions in order that the aged annuitants may spend the remainder of their years among their friends and relations, instead of being brought in their old age from all dear associations to live and die in the midst of strangers. It is well known to most of our readers that we take a deep interest in this question, and at the last biennial festival dinner we handed a cheque for £1000 to the treasurer, to be the nucleus of a fund for the purpose of enabling the council to grant increased pensions in lieu of residences. Moreover, it is hardly necessary to advert to the disadvantages likely to result from placing the few failures of the profession in the very midst of boys who are preparing for the battle of life, many of whom intend to adopt the same profession and aspire to make it a success.

The objections to the term "benevolent" in the title occurred to us long before the college was incorporated. On May 3rd, 1851, we wrote in a leading article: "We wish, then, the proposal of Mr. Propert good speed. We should like to see the term 'benevolent' omitted from the title, but for the objects of the institution, whether for eleemosynary or educational purposes, we have but one word and one thought—that of hearty coöperation and support." It is not pleasant for those who can and do pay fully for the education of their sons to know that misconceptions may arise in consequence of the college being generally known as a benevolent institution. Moreover, in the interests of the pensioners themselves, and bearing in mind their social position, the term might well be dropped, because the pang which many no doubt experience as recipients of eleemosynary relief must be very keen, and it is not kind to enhance it by the constant repetition of the word "benevolent." Some governors fear that the subscriptions and donations would fall off if the name were changed, but we do not believe that this would be the case. No one supports a charity because of the title it possesses, but because it is known to be doing good work in the field of its operations. In this case, then, a glance at a prospectus or a report would show what is being done, and accordingly no lack of support would, we think, be forthcoming.

CHOLERA.

THE repressing effect which the late cold weather has had on the epidemic has been very manifest if we may judge from the comparative absence of reports—official or otherwise—regarding it. The number of cases that continue to make their appearance in countries and districts abroad, where it has hitherto prevailed, is evidently so small and insignificant at the present time as not to justify the issue of any Government reports or returns in regard to them.

We learn, however, from Tunis on the 8th inst., that 22

cases of cholera had occurred there during the previous two days; and it is reported from Lisbon that a disease resembling cholera is alarmingly prevalent in the island of St. Vincent, one of the Cape de Verd group.

THE INTERNATIONAL EXHIBITION OF THE RED CROSS IN ROME.

(FROM OUR SPECIAL CORRESPONDENT.)

TWICE fixed and twice postponed, the inauguration of the International Exhibition of the Red Cross took place on the afternoon of Oct. 22nd. Count della Somaglia was the first to arrive, and he was accompanied to the platform by the War Minister, Signor Pelloux, who represented His Majesty King Humbert; by Count di Solms, the German Ambassador; by Mohamed Bey, the Turkish Ambassador; by Baron Wlangali, the Russian Ambassador; by Baron de Bruck, the Austrian Ambassador; by the Ministers Plenipotentiary of Bavaria and Belgium and by many attachés of the several Legations; by the Prefect and Syndic of Rome; by Generals Cosenz, Pinedo, Baroffio, and others; by numerous representatives of the various scientific and medical bodies in Italy, and by a considerable number of superior officers of both the services. Count della Somaglia opened the proceedings with a short, felicitous address, in which, after thanking the foreign representatives for the interest they had taken in the Exhibition and its immediate object, he dwelt on the noble idea which forms the inspiring principle of the Italian Red Cross—an institution possessed by two supreme and seemingly contradictory, but really harmonious aspirations—that of perfecting, as far as may be, the means of helping the wounded in time of war, and that of postponing for the longest period possible the occasion when such means shall be called into working.

The vast *locale* of the Eldorado in the Via Nazionale has, with a skill and effect that do honour to the ingenuity and energy of all concerned, from the President downwards, been transformed into a handsome pavilion. The first hall is appropriated for the sanitary *matériel* employed by the Italian army, including cars for the conveyance of the wounded on plain and on mountain, with litters and means of transport of all kinds. A grand central *salone*, just beyond this hall, contains the requisite material for a fully equipped field hospital, devised and arranged by the Italian Red Cross, to whose exhibits the *salone* itself is exclusively restricted. This is a very varied and complete collection, the cost of which, it may interest the readers of THE LANCET to know, was defrayed from the proceeds of the grand Red Cross ball given with this object in view some years ago in the Teatro Nazonale. After this we proceed to the great circular corridor, or series of lateral galleries, which have been reserved for the exhibits of the competitors of the various nationalities. The competition, as your readers are already aware, is for the best mechanical means of picking up the wounded painlessly and promptly from the battlefield and conveying them, also painlessly and promptly, to the nearest ambulance; and the prize awarded to the successful competitor—the "King Humbert and Queen Margherite prize," as it is called from its august donors—is in value 10,000 fr., or £400. Germany, for the number and variety of her competing exhibits, out-distances all other countries, among which come, in the order of their competitive *matériel*, Switzerland, Belgium, Roumania, France, Italy, Great Britain, and Greece. Before pronouncing on the merits of the respective contrivances put *en évidence* for the "grand prix" of the Exhibition, it may be remarked, by way of "first impressions," that more than one of the contrivances in question seem to have been contributed without any view to competition at all. They will doubtless receive the appreciation they deserve, but that will be bestowed for other merits than those most likely to find favour with the Adjudication Committee. For instance, the Sanitary Administration of British India sends in a series of transport waggons of excellent design and workmanship, but so heavy in themselves, and mounted on iron wheels of such weight, as practically to exclude them from the competition; on the other hand, Austria appears to have aimed at the opposite extreme—her contrivances for the picking up and transport of the wounded consist of canvas stretchers slung on bamboo poles, being so light as hardly to seem capable of outliving half a day's service. Switzerland extorted general admiration for her contributions as a whole, while Greece attracted particular notice for her litters and France for specimens of these as well as of other—notably wheeled—means of transport.

THE AWARDS.

The prize of 10,000 fr. (£400) offered by Their Majesties the King and Queen of Italy for the best means of promptly and, as far as possible, painlessly transporting the wounded in war from the battlefield to the nearest ambulance, or to the points from which the further transport of the same can be most easily effected by the ordinary means in use, attracted some sixty-five competitors, Italy contributing thirty-three models, Germany twenty-one, Austria five, France two, Switzerland one, Bulgaria one, Greece one, and the British (East) Indies one model. The merits of these were, on the whole, so high and, in the case of many of them, so evenly balanced that the International Jury asked and obtained Their Majesties' permission to divide the 10,000 fr. into several smaller sums, so as to admit of rewarding competitors whose models were worth more than merely honourable mention. Their Majesties graciously assented, and accordingly, after a full critical and impartial examination of some sixty-five competing models, the following awards were announced:—

The first prize (3000 fr.) was obtained by Signori Rosati and Pettinati, Italian exhibitors. Their model (No. 44 in the order of arrangement and so entered in the catalogue) is certainly a very fine specimen of construction, consisting of a wheelbarrow (*carretto*) furnished with two seats. The combination of lightness, elasticity, and strength was the point in this model which won for it the highest approval as an adjunct to the ambulance. The same exhibitors also attracted favourable notice for their specimen of a movable chair and four plain stretchers of the handiest and most comfortable type. The second prize (2000 fr.) was gained by M. Luigi Fröhlich of Switzerland (No. 59) for his stretcher for mountain warfare. This is an ingeniously contrived, well-constructed piece of mechanism, being fitted to serve as a portable chair, which is attached in knapsack form behind. Prize the third (1500 fr.) was awarded to the Marchese Giuseppe de Luna of Messina, No. 53, for a stretcher, in solid iron, capable of being folded up and running on wheels; and another prize of equal amount was awarded to Signor Matteo Mascarello, also for a flexible stretcher, capable of being folded up, of admirable simplicity and lightness. The next prize (1000 fr.) was adjudged to a German exhibitor, Herr Edward Kühlstein (No. 2), for a cleverly designed, solid, yet elegant car for the wounded. It has, inside, two movable stretchers and a long seat for the less severe cases. It can be taken to pieces and recomposed with marvellous celerity, and it contains room for the *matériel* of the relieving party. Another prize of the same value was gained by Signor Mazzutini of Udine in the Julian Venetia, also for a transport car, in some respects superior, in others inferior, to its German competitor. Its features are, inside (1) a jointed litter, which may be taken down, and is exhibited in two forms, of which one is of iron and the other of bamboo cane, and (2) a wheelbarrow-litter, also capable of being taken down. This latter had already commended itself to favourable notice at the Red Cross section of the Esposizione d'Igiene at Padua. The former (the litter reducible to two) is excellent in either form; that in iron being solid and handy, while that in bamboo is lighter and cheaper.

This exhausts the prizes in money. The winners of silver medals, stamped with Their Majesties' likenesses, are: Colonel G. Bellati of the Stato-Maggiore for two reflectors and parabolic projectors (No. 32) for illuminating the battlefield, and not only aiding the carriers of the wounded in finding their way in the darkness, but also facilitating the search for the missing. This beautiful apparatus has for some time been before the public and has attracted much attention, particularly in France. After Colonel Bellati comes Captain Rodolfo Bizzari of Pesaro with three very handy, well-contrived stretchers on wheels, capable of being taken down and easily transportable. Third in the list is Signor Boccia Salvatore of Bardonnecchia (No. 47), whose model of a sledge stretcher, combining all the advantages of this mode of conveyance, was much admired. The fourth is Herr Rinaldo Cermach of Austria (No. 21), whose models of six stretchers, different in construction, capable of being dragged by one great wheel, two at a time, were very ingenious, but had the drawback of excessive weight. After him comes Signor Eugenio Franchini

of Rome (No. 39) for a suspensory stretcher; and then Herr Adolf Greef (No. 5) for two light stretchers of iron, sheathed in cloth. They may be carried on the arm or drawn by two detachable wheels. Herr Jacoby follows, and is awarded a medal for his wheeled stretcher, and after him come Herren G. and C. Lobner (Austria), whose ambulance car (No. 1) is exceedingly, possibly too, light, and contains two ingeniously constructed stretchers, perhaps not quite strong enough to be comfortable. Next is Signor Scipione Losio (No. 41), whose jointed stretcher with bands of cloth was much admired for its handiness, strength, and convenience. Herr Pachmayr (No. 19) succeeds with two stretchers, iron-made, mounted on wheels, the whole being very light; and then his compatriot, Herr Solstein, with his stretcher (No. 15) on two wheels, very elaborately wrought in detail, the wheels being provided with a spring which obviates all jolting. The objections to this model were its lack of originality and its excessive costliness. Lastly comes Signor Guilio Tedesco of Verona with his "barella a zaino" (pouch-bag stretcher), so called from its being easily packed. It may be taken down and rolled up like a blanket, and has room for a small medicine chest. Its weight is 13 kilogrammes and its price is under £2. The question it is apt to suggest is as to its ability to stand the wear and tear of a campaign.

Such are the primary and the secondary awards in the International Exhibition of the Red Cross. The jury is admitted to have discharged its difficult task with impartiality and judgment, and the models thus placed prominently *en évidence* will doubtless form the starting point of further improvements on the way to perfection. The Exhibition will remain open till the 12th inst.

Oct. 22nd.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6155 births and 4005 deaths were registered during the week ending Nov. 4th. The annual rate of mortality in these towns, which had been 18·4 and 18·3 per 1000 in the preceding two weeks, rose again last week to 20·2. In London the rate was 20·5 per 1000, while it averaged 20·0 in the thirty-two provincial towns. The lowest rates in these towns were 9·6 in Croydon, 11·9 in Halifax, 14·6 in Portsmouth and in Bristol, and 15·0 in Leicester; the highest rates were 24·1 in Salford, 26·0 in Liverpool, 26·5 in Preston, 26·6 in Wolverhampton, and 26·7 in Hull. The 4005 deaths included 458 which were referred to the principal zymotic diseases, against 508 and 447 in the preceding two weeks; of these, 108 resulted from diphtheria, 81 from scarlet fever, 74 from diarrhœa, 70 from "fever" (principally enteric), 61 from whooping-cough, 57 from measles, and 7 from small-pox. No fatal case of any of these diseases occurred last week in Halifax; in the other towns they caused the lowest death-rates in Newcastle-on-Tyne, Brighton, Croydon, and Nottingham, and the highest rates in Sunderland, Wolverhampton, Gateshead, and Norwich. The greatest mortality from measles occurred in Wolverhampton and Norwich; from scarlet fever in Plymouth, Liverpool, and Burnley; from whooping-cough in Plymouth, Derby, and Gateshead; from "fever" in Norwich, Birkenhead, Hull, Sunderland, and Gateshead; and from diarrhœa in Wolverhampton and Blackburn. The 108 deaths from diphtheria included 88 in London, 4 in Sheffield, and 3 in Preston. Four fatal cases of small-pox were registered in Birmingham, 1 in London, 1 in Bristol, and 1 in Bradford, but not one in any other of the thirty-three towns. There were 110 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, the 4th inst., against 84, 76, and 87 at the end of the preceding three weeks; 30 new cases were admitted during the week, against 12 and 25 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2906, against 2785, 2758, and 2778 on the preceding three Saturdays; 460 new cases were admitted during the week, against 304 and 401 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 277 and 271 in the preceding two weeks, rose again to 369 last week, but were 21 below the corrected average. The causes of 52, or 1·3 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Cardiff, Bradford, Leeds, Newcastle-on-Tyne, and in eight other smaller towns; the largest proportions of uncertified deaths were registered in Leicester, Blackburn, Sheffield, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 18·6 and 18·2 per 1000 in the preceding two weeks, rose again to 18·7 during the week ending Nov. 4th, but was 1·5 per 1000 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 17·6 in Leith and 18·1 in Paisley to 20·7 in Greenock and 24·0 in Perth. The 528 deaths in these towns included 15 which were referred to diarrhœa, 14 to diphtheria, 13 to whooping-cough, 5 to "fever," 5 to scarlet fever, and not one either to measles or small-pox. In all, 52 deaths resulted from these principal zymotic diseases, against 64 in each of the preceding two weeks. These 52 deaths were equal to an annual rate of 1·9 per 1000, which was 0·4 below the mean rate last week from the same diseases in the thirty-three large English towns. The 15 fatal cases of diarrhœa showed a slight further decline from those recorded in recent weeks, and included 6 in Glasgow and 4 in Dundee. The deaths referred to diphtheria, which had been 5 and 13 in the preceding two weeks, further rose to 14 last week, of which 6 occurred in Glasgow, 2 in Dundee, and 2 in Leith. The fatal cases of whooping-cough, which had been 14 and 9 in the preceding two weeks, rose again to 13 last week and included 6 in Glasgow and 3 in Edinburgh. The 5 deaths referred to different forms of "fever" showed a further decline from recent weekly numbers and included 2 in Glasgow and 2 in Paisley. The fatal cases of scarlet fever, which had been 11 and 16 in the preceding two weeks, declined to 5 last week, of which 3 occurred in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 106 and 116 in the preceding two weeks, declined to 103 last week and were 39 below the number in the corresponding week of last year. The causes of 44, or more than 8 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 24·5 and 20·6 per 1000 in the preceding two weeks, rose again to 26·8 during the week ending Nov. 4th. During the past five weeks of the current quarter the death-rate in the city has averaged 23·9 per 1000, against 18·6 in London and 17·7 in Edinburgh. The 180 deaths registered in Dublin during the week under notice showed an increase of 42 upon the number in the previous week and included 27 which were referred to the principal zymotic diseases, against 22 and 17 in the preceding two weeks; of these, 10 resulted from "fever" (principally enteric), 7 from diarrhœa, 4 from measles, 2 from scarlet fever, 2 from diphtheria, 2 from whooping-cough, and not one from small-pox. These 27 deaths were equal to an annual rate of 4·0 per 1000, the zymotic death-rate during the same period being 2·8 in London and 1·2 in Edinburgh. The deaths referred to different forms of "fever," which had declined from 10 to 8 in the preceding three weeks, rose again to 10 last week. The fatal cases of measles, which had been 2 in each of the preceding two weeks, rose to 4 last week. The 2 deaths from whooping-cough corresponded with the number in the preceding week. The 2 fatal cases of scarlet fever were the first deaths referred to this disease during the past six weeks. The 2 deaths from diphtheria exceeded the number in any recent week. The 180 deaths in Dublin last week included 38 of infants under one year of age and 38 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons exceeded those recorded in the preceding week. Two inquest cases and 5 deaths from violence were registered; and 65, or more than a third, of the deaths occurred in public institutions. The causes of 7, or nearly 4 per cent., of the deaths in the city last week were not certified.

HEALTH OF CALCUTTA.

Dr. W. J. Simpson, in his report on the health of Calcutta for July last, states that of a total of 1589 deaths which occurred in the district 59 were from cholera and 71 from

tetanus. In urban Calcutta the proportion of male to female deaths was as 134 to 100, and in the suburban area as 121 to 100. Of 27 deaths from tetanus which took place in urban Calcutta, 22 were of children under one year of age. The figures with regard to infantile mortality amongst the different races in Calcutta are, we think, of sufficient interest to be reproduced here, and we shall look forward to Dr. Simpson's remarks upon them in his annual report.

INFANT MORTALITY UNDER ONE YEAR OF AGE.

Nationality.	Population, 1893.			Number of deaths.			Ratio per 1000 of population per annum.			Ratio on estimated births.		
	Town.	Suburbs.	Combined.	Town.	Suburbs.	Combined.	Town.	Suburbs.	Combined.	Town.	Suburbs.	Combined.
Hindoos	4107	2412	6519	142	61	203	414·9	308·4	373·6	292·7	232·8	271·6
Mahomedans	1226	1388	2614	60	56	116	587·2	484·1	532·5	369·7	326·2	347·2
Christians	424	131	555	14	3	17	396·2	274·8	367·5	283·6	215·5	268·4
Other classes	101	6	107	3	1	4	356·4	2000·0	448·5	262·5	666·6	309·3
Total	5858	3937	9795	219	121	340	448·6	368·8	416·5	309·3	269·4	293·7

VITAL STATISTICS OF LONDON DURING OCTOBER, 1893.

IN the accompanying table will be found summarised complete statistics relating to sickness and mortality during October in each of the forty-one sanitary districts of London. With regard to the notified cases of infectious disease in the metropolis during last month it appears that the number of persons reported to be suffering from one or other of the nine diseases in the accompanying table was equal to 24·5 per 1000 of the population, estimated at 4,305,551 persons in the middle of this year. In the preceding two months the rates had been 17·2 and 23·6 per 1000. Among the various sanitary districts the rates last month were considerably below the average in Westminster, St. James Westminster, Hampstead, St. Martin-in-the-Fields, Strand, Woolwich, and Plumstead; while they showed the largest excess in Clerkenwell, Bethnal Green, St. George-in-the-East, Limehouse, Poplar, and Newington. The prevalence of small-pox in London showed a slight further decline during October, an average of 19 cases weekly being notified, against numbers declining from 134 to 22 in the preceding five months; of the 78 cases notified during last month, 18 belonged to Poplar, 7 to Kensington, 5 to Bethnal Green, 5 to Limehouse, 4 to Battersea, and 4 to Woolwich sanitary districts. The Metropolitan Asylum Hospitals contained 81 small-pox patients at the end of October, against numbers declining from 516 to 71 at the end of the preceding five months; the weekly admissions averaged 16, against 75, 50, 22, and 18 in the preceding four months. The prevalence of scarlet fever in London showed a further increase upon that recorded in recent months; this disease was proportionally most prevalent in Clerkenwell, City of London, Bethnal Green, St. George-in-the-East, Limehouse, Poplar, Newington, and St. Olave Southwark sanitary districts. The Metropolitan Asylum Hospitals contained 2633 scarlet fever patients at the end of October, against 2800, 2755, and 2659 at the end of the preceding three months; the weekly admissions averaged 321, against 321 and 293 in the preceding two months. Diphtheria also showed slightly increased prevalence during the month under notice; amongst the various sanitary districts this disease showed the highest proportional prevalence in Hackney, St. Luke, Shoreditch, Bethnal Green, St. George-in-the-East, Limehouse, Poplar, Newington, and Lewisham. There were 306 cases of diphtheria under treatment in the Metropolitan Asylum Hospitals at the end of October, against 293, 291, and 296 at the end of the preceding three months; the weekly admissions averaged 64, against 60, 68, and 65 in the preceding three months. Enteric fever was proportionally most prevalent during October in Hackney, St. Giles, Holborn, Limehouse, and Poplar sanitary districts. The Metropolitan Asylum Hospitals contained 112 enteric fever patients at the end of October, against 104, 95, and 104 at the end of the preceding three months; the weekly admissions averaged 17, against 17 and 20 in the preceding two months. Erysipelas showed the highest proportional prevalence in Marylebone, Clerkenwell, Shoreditch, Whitechapel, Mile End Old Town, and Poplar sanitary districts. Nine cases of puerperal fever were notified during October in Islington, 5 in Lambeth, and 4 in Camberwell sanitary districts.

The mortality statistics in the accompanying table relate to the deaths of persons actually belonging to the various metropolitan sanitary districts, the deaths occurring in the institutions of London having been distributed amongst the various sanitary districts in which the patients had previously resided. The distribution of these deaths, and especially of those resulting from zymotic diseases, affords the most trustworthy data upon which to calculate rates of mortality. During the four weeks ending Saturday, Oct. 28th, the deaths of 5893 persons belonging to London were registered, equal to an annual rate of 17·8 per 1000, against 21·6, 20·2, and 18·5 in the preceding three months. The lowest death-rates during October in the various sanitary districts were: 10·9 in Hampstead, 12·2 in St. George Hanover-square, 12·6 in Hammersmith, 12·9 in Lewisham, 13·0 in Wandsworth, and 14·0 in Battersea; the highest rates were: 23·3 in St. Olave Southwark, 23·4 in Bermondsey, 24·3 in Whitechapel, 25·3 in Shoreditch, 26·1 in St. George Southwark, 26·5 in St. George-in-the-East, and 27·7 in the Strand. During the four weeks of October 889 deaths were referred to the principal zymotic diseases in London; of these, 319 resulted from diphtheria, 162 from diarrhœa, 143 from scarlet fever, 119 from whooping-cough, 76 from measles, 65 from different forms of "fever" (including 63 from enteric fever and 2 from ill-defined forms of fever), and 5 from small-pox. These 889 deaths were equal to an annual rate of 2·7 per 1000, against 5·5, 4·4, and 3·6 in the preceding three months. Among the various sanitary districts the lowest zymotic death-rates were recorded in St. George Hanover-square, St. James Westminster, Holborn, City of London, St. Saviour Southwark, and St. Olave Southwark; and the highest rates in Shoreditch, Bethnal Green, St. George-in-the-East, Limehouse, St. George Southwark, and Newington. Five fatal cases of small-pox were registered in London during the month under notice, being within one of the corrected average number in the corresponding periods of the preceding ten years; of these 5 deaths, 1 each belonged to Kensington, Fulham, Poplar, Battersea, and Camberwell sanitary districts. The 76 deaths referred to measles were 39 below the average number; amongst the various sanitary districts this disease showed the highest proportional fatality in St. Pancras, Shoreditch, and St. George Southwark. The 143 fatal cases of scarlet fever exceeded by 21 the corrected average number; this disease was proportionally most fatal in Clerkenwell, St. George-in-the-East, Newington, and Greenwich sanitary districts. The 319 deaths referred to diphtheria exceeded by as many as 205 the corrected average, and were higher than the number in any month on record; amongst the various sanitary districts this disease showed the highest proportional fatality in Clerkenwell, St. Luke, St. George Southwark, Battersea, Greenwich, and Plumstead. The 119 fatal cases of whooping-cough were 29 above the corrected average; this disease was proportionally most fatal in Bethnal Green, Newington, and Bermondsey sanitary districts. The 65 deaths referred to different forms of "fever" were 11 below the corrected average; among the various sanitary districts the highest "fever" death-rates were recorded in Hackney and Lime-

MONTHLY ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON.—OCTOBER, 1893.

(Specially compiled for THE LANCET.)

Sanitary areas.	Estimated population in the middle of 1893.	Notified Cases of Infectious Disease.										Deaths from Principal Infectious Diseases.												
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.†	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhœa.	Total.	Annual rate per 1000 persons living.	Deaths from all causes.	Death-rate per 1000 living.	Deaths of infants under one year to 1000 births.
LONDON	4,305,551	78	4804	1598	1	360	24	47	1183	8	8103	24·5	5	76	143	319	119	—	63	2	162	889	2·7	5893	17·8	135
West Districts.																										
Paddington	120,277	3	89	40	—	3	—	—	28	—	163	17·7	—	—	5	11	5	—	2	—	2	25	2·7	142	15·4	111
Kensington	167,038	7	126	48	—	16	—	—	32	—	231	18·0	1	1	4	9	6	—	2	—	2	25	2·7	142	15·4	111
Hammersmith	103,674	—	77	31	—	5	—	2	18	—	133	16·7	—	—	3	4	3	—	1	—	10	33	2·6	102	15·0	155
Fulham	103,075	2	78	47	—	12	—	1	21	—	161	20·4	1	—	3	5	2	—	3	—	8	14	1·8	100	12·6	99
Chelsea	98,114	—	64	30	—	9	1	2	25	—	131	17·4	—	—	2	10	2	—	3	1	8	22	2·8	119	15·0	105
St. George Hanover-square	75,825	2	95	7	—	4	—	1	4	—	113	19·4	—	—	1	1	—	—	2	—	—	4	0·7	71	12·2	133
Westminster	54,761	1	45	6	—	5	—	—	9	—	66	15·7	—	—	3	2	1	—	—	—	5	11	2·6	88	21·0	190
St. James Westminster	23,873	—	15	5	—	2	—	—	3	—	25	13·7	—	—	—	1	—	—	1	—	—	2	1·1	31	16·9	167
North Districts.																										
Marylebone	139,546	2	100	37	—	9	—	—	48	—	196	18·3	—	3	8	10	3	—	1	—	7	32	3·0	216	20·2	129
Hampstead	73,949	—	61	16	—	6	1	—	13	—	97	17·1	—	—	3	3	1	—	—	—	—	7	1·2	62	10·9	61
St. Pancras	234,025	2	287	82	—	9	—	1	76	—	457	25·5	—	22	5	22	4	—	2	—	4	59	3·3	311	17·3	136
Islington	328,608	1	362	103	—	24	1	9	104	1	605	24·0	—	2	7	16	8	—	4	—	7	44	1·7	403	16·0	114
Hackney	240,177	2	326	149	—	41	—	—	69	—	587	31·9	—	—	5	24	13	—	10	—	8	60	3·3	297	16·1	139
Central Districts.																										
St. Giles	38,511	—	41	14	—	7	—	—	8	—	70	23·7	—	—	1	2	2	—	—	—	3	8	2·7	57	19·3	153
St. Martin-in-the-Fields	13,911	—	19	2	—	1	—	—	1	—	16	15·0	—	—	—	—	—	—	—	—	2	2	1·9	21	19·7	180
Strand	23,508	—	15	3	—	2	—	—	—	—	20	11·1	—	—	—	3	1	—	1	—	—	5	2·8	50	27·7	216
Holborn	32,646	1	57	12	—	7	—	—	7	—	64	25·6	—	—	—	1	—	—	1	—	—	2	0·8	45	18·0	136
Clerkenwell	65,163	—	95	35	—	5	—	—	34	1	170	34·0	—	1	4	9	2	—	1	—	1	18	3·6	105	21·0	146
St. Luke	41,466	1	43	17	—	3	—	—	14	—	78	24·6	—	2	—	6	1	—	—	—	3	12	3·8	70	22·0	92
City of London	35,383	—	5	8	—	4	—	—	11	—	76	28·0	—	—	—	1	—	—	—	—	—	1	0·4	55	20·3	143
East Districts.																										
Shoreditch	123,425	—	141	69	—	7	—	1	51	1	270	28·5	—	8	5	13	6	—	—	—	5	37	3·9	240	25·3	190
Bethnal Green	129,625	5	205	72	—	15	1	2	42	—	342	34·4	—	4	9	13	11	—	2	—	7	46	4·6	217	21·8	177
Whitechapel	75,163	1	81	16	—	7	—	1	40	—	146	25·3	—	1	2	3	2	—	1	—	3	12	2·1	140	24·3	177
St. George-in-the-East	45,182	1	80	22	—	5	—	—	17	—	125	36·1	—	3	4	5	3	—	—	—	—	15	4·3	92	26·5	205
Limehouse	57,386	5	105	27	—	18	—	—	20	—	175	39·8	—	1	2	6	4	—	3	—	2	18	4·1	91	20·7	187
Mile End Old Town	108,006	1	132	23	—	17	—	2	41	—	216	26·1	—	4	4	3	2	—	3	—	5	21	2·5	169	20·4	141
Poplar	168,876	18	224	120	—	36	10	1	64	—	473	36·5	1	2	6	10	3	—	6	—	10	38	2·9	261	20·1	149
South Districts.																										
St. Saviour Southwark	26,823	2	25	11	—	—	—	—	7	—	45	21·9	—	—	—	1	1	—	—	—	—	2	1·0	46	21·3	101
St. George Southwark	59,952	—	80	19	—	8	1	—	14	—	122	26·5	—	4	1	8	4	—	1	—	4	22	4·8	120	26·1	167
Newington	117,430	—	188	63	—	4	—	1	32	—	288	32·0	—	1	7	9	7	—	1	—	7	32	3·6	202	22·4	197
St. Olave Southwark	12,861	—	21	3	—	1	—	—	3	—	28	28·4	—	—	1	—	—	—	—	—	—	1	1·0	23	23·3	59
Bermondsey	84,244	—	64	29	—	4	—	2	24	—	123	19·0	—	1	1	6	5	—	—	—	3	16	2·5	151	23·4	152
Rotherhithe	39,764	—	42	9	—	—	1	—	6	—	58	19·0	—	1	1	4	—	—	—	—	2	8	2·6	67	22·0	83
Lambeth	280,567	2	325	94	—	10	5	5	59	1	501	23·3	—	14	9	15	4	—	3	1	10	56	2·6	378	17·6	128
Battersea	160,633	4	189	71	1	13	—	3	57	—	338	27·4	1	—	3	20	4	—	—	—	9	37	3·0	172	14·0	102
Wandsworth	169,379	—	170	51	—	10	—	2	42	1	276	21·2	—	—	10	15	3	—	3	—	6	37	2·8	169	13·0	86
Camberwell	246,837	7	283	78	—	12	1	4	53	3	441	23·3	1	1	7	11	2	—	2	—	11	35	1·8	301	15·9	115
Greenwich	173,349	3	220	70	—	9	1	3	49	—	355	26·7	—	—	11	20	4	—	3	—	4	42	3·2	247	18·6	137
Lewisham (excluding Penge)	76,593	—	99	34	—	4	—	—	19	—	156	28·5	—	—	1	6	—	—	1	—	1	9	1·5	76	12·9	167
Woolwich	41,794	4	37	—	—	—	—	—	5	—	46	14·3	—	—	1	—	—	—	—	—	—	1	1·2	62	19·3	152
Plumstead	94,192	1	72	25	—	6	1	2	13	—	120	16·6	—	—	4	11	—	—	—	—	2	17	2·4	109	15·1	108
Port of London	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Including 54 cases of membranous croup.

† Including deaths from membranous croup.

house. The 162 fatal cases of diarrhœa were 13 below the average; this disease showed the highest proportional fatality in Kensington, Fulham, and St. Giles sanitary districts. In conclusion, it may be stated that the mortality in London during October from these principal zymotic diseases exceeded the average by 27 per cent.

Infant mortality in London during the month under notice, measured by the proportion of deaths under one year of age to births registered, was equal to 135 per 1000, and was slightly below the average; the lowest rates of infant mortality were recorded in Hammersmith, Hampstead, St. Luke, St. Saviour Southwark, St. Olave Southwark, and Wandsworth; the highest rates in Westminster, Strand, Shoreditch, St. George-in-the-East, Limehouse, and Newington sanitary districts.

THE SERVICES.

MOVEMENTS IN THE MEDICAL STAFF.

SURGEON-CAPTAIN L. T. M. NASH has been transferred from the Medical and Surgical Division of the Royal Victoria Hospital, Netley. The following officers have arrived from India in the *Serapis:* Surgeon-Major Ward and Surgeon-Captains Adamson and Morgan. The following are proceeding home from India: Brigade-Surgeon-Lieutenant-Colonel White and Surgeon-Captains Black and Fayrer. Surgeon-Captain Shine has embarked in the *Himalaya* for a tour of service in Malta, and Brigade-Surgeon-Lieutenant-Colonel Macartney has proceeded by the same transport. Surgeon-Captain Davis has left Jersey for Gibraltar in the *Himalaya* in order to take Medical Charge of the drafts returning in that transport to England, and Surgeon-Captain Thomas has proceeded to Gibraltar for a tour of service. Surgeon-Captain Kiddle has arrived in Cyprus from leave of absence, and Surgeon-Captain Macpherson has arrived in Gibraltar. Surgeon-Captain Kelly has arrived from India on sick leave, and Surgeon-Captain Bury from Burma. Surgeon-Captain Wade has embarked for a tour of service in South Africa.

INDIA AND THE INDIAN MEDICAL SERVICES.

The following appointments in the Army Medical Staff are announced: Surgeon-Major Webb, on return from leave, from private affairs, to the Medical Charge, Station Hospitals, Indore, vice Surgeon-Major Peterkin. Surgeon-Colonel Gore, to be Administrative Medical Officer in the Bombay Presidency, in succession to Surgeon-Colonel Davies, nominated for the appointment of Principal Medical Officer, Madras Army. Surgeon-Major Drury, expected from England for duty in India, to the Bombay Command, in succession to Surgeon-Major Day, by exchange. Surgeon-Major W. R. Browne, M.D., to act as Physician and Senior Medical Officer, General Hospital, Madras, during the absence of Surgeon-Lieutenaht-Colonel W. Price, on leave. Brigade-Surgeon-Lieutenant-Colonel W. P. Warburton, I.M.S., to officiate as Principal Medical Officer, Assam District, during the absence of Surgeon-Colonel C. P. Costello on leave. Surgeon-Captain D. W. Scotland, Officiating Superintendent, Central Prison, Farukhabad, on being relieved by Surgeon-Captain R. R. Weir, to officiate as Civil Surgeon, Mainpuri. The following promotions are made, subject to Her Majesty's approval: To be Surgeon-Lieutenant-Colonels: Surgeon-Major Hazlett Allison, M.D., and Surgeon-Major T. J. Hackett Wilkins. To be Surgeon-Majors: Surgeon-Captain R. B. Roe, Surgeon-Captain J. Smyth, M.D., Surgeon-Captain H. Greany, M.D., and Surgeon-Captain E. P. Youngerman. Surgeon-Captain R. J. D. Hall, A.M.S., on arrival from England, to do duty Secunderabad District. Surgeon-Lieutenant H. L. Sutherland and E. H. Sharman, on arrival from England, to do duty Madras District. Surgeon-Lieutenant T. Stodart, on arrival from England, to do duty Belgaum and Bangalore Districts. Surgeon-Lieutenant T. H. Foulkes, on arrival from England, to do duty Rangoon District. Surgeon-Captain C. H. Bedford has assumed charge of the civil medical duties of the Khot District, relieving Surgeon-Captain G. H. Frost. The undermentioned officers have leave of absence: Surgeon-Major G. W. Brazier-Creagh, for six months, to Persia; Surgeon-Major J. K. Kanga, I.M.S., on private affairs, for two years; and Surgeon-Captain J. Garvie, 2nd P.C., for one year. Surgeon-Major J. E. Ferguson, I.M.S., retires from the service.

NAVAL MEDICAL SERVICE.

Staff-Surgeon Richard Dormer White, M.A., M.D., has been promoted to the rank of Fleet-Surgeon. The following appointments are notified: Inspector-General Duncan Hilston, M.D., to Haslar Hospital; Staff-Surgeon R. Bentham to the *Colossus*. Surgeons: W. G. Oxford to the *Penelope*, for Ascension Island; E. T. Meagher to the *Defiance;* and E. F. Mortimer to the *Cambridge*.

VOLUNTEER CORPS.

Artillery: 1st Forfarshire: Surgeon-Lieutenant D. M. Greig, M.B., to be Surgeon-Captain. — *Royal Engineers (Fortress and Railway Forces)*: 2nd Cheshire (Railway): Surgeon-Captain J. Atkinson to be Surgeon-Major.—1st Gloucestershire: Surgeon-Major S. Smith to be Surgeon-Lieutenant-Colonel.—*Submarine Miners:* The Forth Division: Surgeon-Lieutenant T. P. C. Wells resigns his commission.—*Rifle:* 6th Volunteer Battalion, the Manchester Regiment: Surgeon-Lieutenant R. L. Sparrow to be Surgeon-Captain.

ASSISTANT PROFESSORSHIP OF PATHOLOGY AT NETLEY.

Surgeon-Captain D. Semple has been appointed to succeed Surgeon-Captain D. Bruce as Assistant Professor of Pathology in the Army Medical School, Netley. Surgeon-Captain Semple joined the Army Medical Staff in 1883. During the past year he has been working in the Bacteriological Laboratory at Netley. The appointment is tenable for five years.

THE FRENCH FORCE IN DAHOMEY.

According to intelligence recently received from General Dodds the health of the troops composing the French expeditionary force continues to be satisfactory. A medical history of the campaign against King Behanzen, when it comes to be published officially, will be interesting, as we should be glad to know what was the nature of the clothing and equipment and what were the sanitary and medical arrangements provided for the French Expedition in that climate, as well as the losses in the way of sickness, invaliding, and mortality which the service entailed.

H.M.S. *Serapis* brought home 168 men as invalids from India for the Royal Victoria Hospital, Netley.

QUETTA.

It is stated in the Indian papers that fever is very prevalent among the troops at Quetta. It is in all probability of a malarious nature if we may judge from the large number that have apparently suffered from it.

FIELD MEDICAL SERVICE WORK.

Our service contemporary, the *Army and Navy Gazette*, took occasion last week, in connexion with the publication of a new edition of Surgeon General Sir T. Longmore's book on "Ambulance Transport," edited by Surgeon-Captain W. A. Morris, M.S., to advert to the subject of the complaint of the Army Medical Service that they had not any proper opportunities for practising their duties at peace manœuvres. We are glad to see that this subject is not being lost sight of, for it is of great importance that medical officers and men of the Medical Staff Corps should familiarise themselves in times of peace with all the different kinds of transport, appliances and equipment which they would have to use in war, as it would be too late to begin to learn all about them then.

SERVICE REGULATIONS IN INDIA.

The *Times of India* of the 21st ult. published a paragraph to the effect that all service on full pay (whether acting or permanent) as Surgeon-Major-General or Surgeon-Colonel reckons towards the five years' service of those grades. The leave allowed to a Surgeon-Major-General or Surgeon-Colonel under Articles 681 and 689, Army Regulations, India, vol. i., Part I., counts towards this additional pension, but it is included in the periods of leave which are allowed to reckon as service for retirement.

AT the ordinary meeting of the Royal Meteorological Society on the 15th inst. a subject of somewhat unusual interest will be brought before the members in a paper to be read by Mr. F. J. Brodie, F.R. Met. Soc., entitled "The Great Drought of 1893 and its attendant Meteorological Phenomena." This communication will be followed by one entitled "Thunder and Hail Storms over England and the South of Scotland, July 8th, 1893," by Mr. W. Marriott, F.R. Met. Soc. The meetings of the society will in future be held at 8 P.M. at 25, Great George-street, Westminster.

THE corporation of King's Lynn have, it is understood, determined to expend £400 in the construction of a temporary hospital for patients suffering from infectious diseases.

Correspondence.

"Audi alteram partem."

"THE TEACHING OF ANATOMY."

To the Editors of THE LANCET.

SIRS,—I have read the interesting letter of Mr. T. Cooke on the above subject in THE LANCET of Nov. 4th with much pleasure. Would you allow me as an old teacher and examiner to say a few words on the teaching of anatomy in particular, and generally on our present system of examining—and therefore of teaching? I say "therefore" because I suppose no one denies that the teaching, say in the London schools, follows the standard of the examinations, say at the Royal College of Surgeons. I assume, to begin with, that no one will differ from Mr. Cooke in asserting that the teaching of anatomy should be by dissection—i.e., by making the students themselves dissect—and not by demonstration, which consists in showing them other people's dissections, or dissecting for them. The examinations, however, follow of necessity the other course. At the Royal College of Surgeons the students cannot be set down to dissect, because it is impossible to find subjects enough. They are shown other people's dissections, chiefly the exquisite dissected preparations from the college museum, which correspond very closely with published anatomical plates. Demonstrations, then, of good dissections, and a careful study of plates, enable many a student to pass a brilliant anatomical examination, whose performance with the scalpel and forceps would be ludicrous, because he has rarely dissected, and that in the most perfunctory manner. If we would make the anatomical examination really practical (and this is, I apprehend, the only way to introduce really practical teaching) some way must be found to examine the student in dissecting. This can only be done at the school, and doubtless the details would present difficulty; but I do not see that it is impossible. Frozen sections are, I daresay, very valuable, but, as Mr. Cooke says, they are of recent introduction, and consequently were unknown to many of the best anatomists of even our own day. The essential point in our anatomical teaching should be to make sure that the student has worked at it with his own hands and his own brains. But is not this equally true of all the other subjects of examination? And does not our present system of examination tend, more or less, to substitute demonstration, or cramming, for study in all subjects? Less, of course, in medicine and surgery, where the students' practical knowledge can be to some extent tested by living cases than in the first-mentioned subjects. Yet even here the test is not a very perfect one. Examinations, in fact, can never be a perfect test of knowledge. Teaching, as Mr. Cooke says, should be the *vis a fronte*, and therefore everything in our examination system is to be deprecated which discourages learning by encouraging cramming. Now this seems undeniably the effect of the present system of an examination broken into subjects independent of each other. A man "grinds up" one subject, passes in it, drops it, and is never again asked a question in that subject. Then he takes up another subject, which he treats in a similar way; so that of the men who come up for final examination only a very minute percentage could, I believe, pass in the preliminary stages. Yet if these preliminary subjects are not necessary, to insist on the student learning them is only to put needless obstacles in the way of his obtaining a diploma; and if they are necessary, an examining body is not doing its duty to the public in increasing the number of candidates notoriously ignorant of them. The commencement of this vicious course was taken when the old single examination was divided into two—one on anatomy and physiology, the second on pathology and surgery—and when the second was made quite independent of the first. I have not a word to say against the separation—that was a great improvement—but to make it total was to induce, almost to compel, the student to forego all further study of anatomy and physiology, the bases of all rational practice. A slight knowledge of anatomy (surgical anatomy) was, it is true, still expected; but physiology, the very life-blood of rational practice—that by which alone it is differentiated from empiricism—was henceforth entirely banished from the education of the advanced student. Still more disastrous, in my opinion, was the step taken by the Council when I was myself chairman of the Board of Examiners in Anatomy and Physiology. These two subjects were separated altogether and allotted to separate examiners, in spite of the admitted fact that anatomy is only a part of physiology, and is as dead when severed from physiology as the body is when deprived of the spirit. Having resisted this change as long as I could in the Council, I felt compelled to resign a post which I could no longer conscientiously fill, and I did this not as presuming to set up my own opinion against that of the much more distinguished surgeons under whose advice the change was made, but in order to emphasise the principle—which I think should never be lost sight of—that the diploma examination is a unity; and that though it has been found convenient to divide it into parts, those parts should not be treated as independent, but as vitally connected with each other, and no subject which is worthy of a place in the examination should ever be dropped out of it. A corollary from this is that no one should be appointed an examiner in any part of the diploma examination who is not qualified to examine in all of them. I know that it is sometimes said that some of the subjects—notably physiology—have become so specialised that none but a specialist is fit to examine in them. But is not the contention absurd as applied to an examination which is not academic and competitive, but practical and qualifying? Who would expect a student to have the whole of anatomy or the whole of surgery at his fingers' ends? If the examiner is not able to set practical questions in physiology which a student may be expected to answer, he is unfit to examine; and I submit that a practical surgeon is more likely to select such questions than a specialist. At any rate, while we specialise our examinations and break them up into separate bits we shall look in vain for practical teaching. Is it too late to take a different course? We have a great opportunity now that the fifth year, so long desired by practical teachers, has been added to the curriculum. Cannot it be devoted to the acquisition of practical knowledge instead of grinding up bits of the "'ologies"? Not that I would condemn morphology and embryology, as Mr. Cooke seems to do; they throw a great light on the facts of anatomy, and if properly used may make those facts more interesting and more attractive to the learner; but I join heartily with him in deploring the tendency to "cramming," which is so conspicuous in our present system, and which has, I believe, been produced, or at any rate encouraged, by the total separation between the various parts of the Conjoint Examination. Meanwhile let us thank Mr. Cooke for a valuable contribution to the discussion of this important subject.

I am, Sirs, yours obedient servant,

Nov. 7th, 1893. T. HOLMES.

"PROPOSED NEW MIDWIFERY PRACTITIONERS."

To the Editors of THE LANCET.

SIRS,—As several medical practitioners have asked me, "Is it a fact that the proposed new midwifery practitioners are to be absolutely independent of medical practitioners, and a separate and distinct class of practitioners?" I feel I cannot do better than quote the words of the supporters of this new order. Thus the late Dr. J. A. Aveling, when giving evidence before the Select Committee on Midwives' Registration, said: "Nurses and midwives are two separate bodies; *the midwife acts by herself on her own responsibility*, the nurse is the handmaid of the physician and does what he tells her." Next, in the prospectus issued by the Midwives' Institute, a body which collected no less than £985 to push the Midwives' Bills through Parliament, the following occurs: "As some confusion exists in the public mind as to the difference between midwives and monthly nurses, it may be well to state that a midwife, according to the Obstetrical Society's diploma," is qualified to attend all cases of natural labour—"that is, she undertakes the cases herself *without a doctor, and is, in fact, engaged instead of one.*" This is sufficiently plain. Again, if reference is made to the "Hospital Annual," 1891, the following will be found: "It behoves all midwives just now to be sure of obtaining a good certificate, for the day of registration is at hand. The midwife stands almost halfway between the nurse and the doctor; she takes on herself a great responsibility, and she requires most thorough and careful training in her duties. The nurse acts under the doctor's orders, *but the midwife is answerable to no one, and has to use her own judgment.* Every reason which

was brought forward for registration of medical men applies also to midwives, for in their hands are the lives of hundreds of mothers and infants." Surely these statements are sufficiently plain; they have been made by the chief supporters of the proposed new order. They will also help to inform the General Medical Council as to the true meaning of this proposal.

It will be remembered that at the November session, 1892, of the General Medical Council the following was adopted: "That the President be requested by the General Medical Council to point out to the institutions and persons who grant such certificates that the certificate should be expressed in such a form as not to lead to the impression that it is a legal qualification to practise midwifery." Again, at the May session, 1893, of the Council, the President, Sir R. Quain, said: "Attention was directed at the last meeting to the form of certificates granted by certain institutions to women who had passed an examination in midwifery, which certificates may lead to the impression that they are legal qualifications. By direction of the Council a notification was prepared and sent to some forty of these bodies, indicating the risk they incurred. Satisfactory answers have been received from the several bodies, and no doubt the Council's action will be beneficial in preventing the confusion which is so objectionable." But has the Council's action been "beneficial" so far? The following advertisement[1] relating to Queen Charlotte's Lying-in Hospital recently appeared:—"On completion of the period of training each pupil, on being found competent, is awarded a 'diploma' qualifying her to practise"—mark, she is given a "diploma," and it "qualifies her to practise." Next, in the same journal, in connexion with the General Lying-in Hospital, the advertisement states that female pupils are trained "in midwifery." Now I feel that the General Medical Council should call the medical staffs of these hospitals before them, and ask if they intend to hinder and thwart the above resolution of the Council. The example set by these hospitals is so degrading that other persons are following their example, and with the result that we have now "The Magnetic and Botanic School of Safe Medicine, Limited," registered as a company, which examines and grants a diploma qualifying the holder to practise medicine, surgery, and midwifery. Surely those who grant diplomas to midwives cannot feel satisfied at this down-grade imitation. The question is: Will the General Medical Council allow this debasing state of affairs to go on? With them it rests, for they have the power of making it "infamous conduct" and striking off the Medical Register the names of those who go on trafficking in the sale of these midwifery diplomas.

As an attempt has been made to make a point out of the fact that midwives are employed by the Irish Poor-law, I would draw attention to the important circular issued by the Irish Poor-law Commissioners, and dated August, 1861. It refers to the "evil results" which followed the manner in which midwives were employed in place of their medical officers, and states: "But the midwife is not substituted for the medical officer, and he is entirely responsible as to the extent to which her services are to be relied on in each case." This shows that the Irish Board do not hold the same opinion as the English supporters of the new order of midwifery practitioners. I would add that the medical staff of the Lying-in Hospital of Liverpool obtained for themselves the large sum of £1000 3s. during the last eight years by the sale of diplomas to midwives, while a few members of the London Obstetrical Society had up to 1890 sold £988 worth. In these days, when it is so difficult to obtain a livelihood by legitimate means, the General Medical Council must surely know that if they allow this sale of diplomas to go on, so successful a financial trade will be certain to find imitators. I hope those who are interested in this vital question will write to their direct representatives on the General Medical Council asking them to give the subject of the petition which I have promoted for presentation to that body their careful attention.

I am, Sirs, yours truly,

Liverpool, Nov. 6th, 1893. ROBERT R. RENTOUL.

*** Dr. Rentoul, supposing his extracts to be accurate and complete, has grounds for bringing this subject again before the General Medical Council. It is not permissible that any medical man, or medical society, or hospital should issue anything purporting to be a diploma without legal sanction. Our own view has been repeatedly expressed that in the last resort the State should provide a fully registered medical practitioner in every parish for obstetric cases, and that any midwife's authority should be strictly limited and subordinated to that provision.—ED. L.

[1] Brit. Med. Jour., Oct. 28th, 1893.

"THE EDUCATION OF IMBECILES AND IDIOTS."

To the Editors of THE LANCET.

SIRS,—I notice among the annotations in THE LANCET of Nov. 4th one headed as above. You remark: "Our only regret is that in this country the accommodation available for purposes of treatment, which in this case implies a constant and methodical process of instruction, is far too limited." This opinion is fully borne out by the experience of those engaged in training such cases. At the present moment there are in England five institutions supported by voluntary contributions, one at Darenth supported by the rates, and two in connexion with county asylums—one at Northampton and the other at Brentwood, Essex. One is to be built shortly in connexion with the Wandsworth County Asylum, and the Lancashire Asylums Board are now considering how best to accommodate those for whom provision is required. These institutions, however, only provide for a very small number of those suffering from the infirmity of idiocy and imbecility. Distressing cases constantly come under one's notice, especially among those residing outside the metropolitan area, for whom no accommodation can be found. Taking the south of England, the Earlswood Asylum can only provide for 600 cases, Essex Hall, Colchester, for 250, the Star Cross Asylum, Exeter, for 100, and the Darenth Schools for 1000 cases. One can easily see that this accommodation for about 2000 cases is only a drop in the ocean when compared with the large number of patients for whom provision is required. At present idiots and imbeciles not in special institutions find a home either in the workhouse or in the lunacy wards of an asylum, places, I need hardly say, quite unsuitable for them, for no attempt is made in either of these institutions to educate and train their minds and teach them such employments as may be useful to them. Those at home are in quite as bad a condition, and not only are they a source of anxiety to those around them, but the mother, whose time is taken up with her imbecile child, is unable to work for her living, and in many cases has to come upon the parish for relief. What is wanted is that every county or combination of counties should have its idiot as well as its lunatic asylum, and the example set by the asylums above-named should be followed throughout the country. You rightly say that "in this respect we are a long way behind the United States." When I visited America in 1876 I found that there was a larger number of institutions in the United States than we had in England, and since then great progress has been made, so that now nearly every State has its training school for idiots, or, as they are called there, "feeble-minded children." Further on in your annotation you say: "Another matter which deserves especial notice in this connexion is the necessity of providing separately for the regular and careful training, both physical and mental, of weak-minded persons belonging to the more wealthy classes." You mention Dr. Bourneville's institution at Vitry, near Paris, which is under his able direction, but you omit to mention that there are similar ones in this country. In England alone there are at least three under medical direction and supervision where the children of wealthy parents can be educated and trained. I think it only right to mention this, as I do not wish the medical men of England to think that the children of the wealthy classes here are worse off in this respect than are those of France.

I am, Sirs, yours faithfully,

FLETCHER BEACH,
Late Medical Superintendent of the Darenth Schools for Imbecile Children.

Sidcup, Kent, Nov. 7th, 1893.

SMALL-POX STATISTICS.

To the Editors of THE LANCET.

SIRS,—THE LANCET of Oct. 28th noticed (p. 1072) the occurrence of outbreaks of small-pox in various localities in the country. Notices of this kind appear from time to time in the medical press; but in them all I look in vain for certain

information which, if supplied, would, I venture to think, be of general interest. We should all, I am sure, be glad to learn how many of these small-pox cases had been subject to vaccination and also to what extent that operation had been carried out. So much unreasoning scepticism exists as to the value of vaccination that these outbreaks may be regarded, although ignorantly, as a proof of its inutility. Surely, therefore, it would be well if, during the outbreak itself, it could be shown, as there is little doubt it could, that numbers of the patients had never been vaccinated at all and that many others had only been very imperfectly protected, or, in other words, that only one or two vaccine marks were present. It may be said that this question has already been settled beyond dispute; but, in view of the circumstance that fresh attacks on vaccination are being made continually, it is surely advisable that fresh and indisputable facts should also be brought forward continually in order to show the fallacy, the ignorance, or the prejudice which underlies all such attacks. These outbreaks seem to offer excellent opportunities for doing so, as, for obvious reasons, it is better that evidence should be adduced from public and official rather than from private sources.

I am, Sirs, yours truly,

Oct. 31st, 1893. I. W. AGNEW.

CHLOROBROM IN PERSISTENT VOMITING NOT ARISING FROM SEA-SICKNESS.

To the Editors of THE LANCET.

SIRS,—The following case is of interest as demonstrating the value of chlorobrom as a remedy in conditions of vomiting arising from causes other than sea-sickness. A woman who was suffering from mental worries had taken little or no solid food for a fortnight and had been drinking wines and spirits freely. At the end of this time persistent vomiting set in, the stomach rejecting everything taken almost immediately it was swallowed. A medical man who then saw her (according to the patient's statement) gave her a sedative draught and told her to abstain from all solid food and simply drink stout freely. These directions she followed, with the result that the vomiting continued unabated, and she became so excited, with a tendency to delirium, that two trained nurses were procured to attend upon her. She had had an attack of delirium tremens about three months previously. At my first visit (forty-eight hours after the commencement of the vomiting) I found the patient in bed, tossing about and talking excitedly, retching violently every few minutes, and each time bringing up a little watery mucus slightly tinged green. The expression of her countenance was anxious, the skin was pale and clammy, and the tongue was pale and indented by the teeth at the edges, as well as being furred brown in the centre. The temperature was 100° F. and the pulse 100, very weak and thready. She complained of great thirst and of acute pain in the left ovarian region, which I found on examination was tense and very tender on pressure. The menses had appeared a few days before the proper date, and the loss was very free. The bowels had acted several times freely, the evacuations being loose and dark. The urine was large in quantity and high-coloured, with deposit of lithates. I ordered warm water to be drunk freely to relieve the retching, and a sinapism to be applied over the left ovarian region and followed by an application of belladonna extract rubbed up with glycerine. On seeing her again a few hours later I found her to be freer from pain, but the vomiting continued, though less violent; she had taken some milk and also some meat extract, but they were immediately returned. As the condition reminded me very much of the later stage of sea-sickness, and the ovarian irritation was also a possible additional cause of the vomiting through reflex action, I determined to try the effect of chlorobrom and gave her a small dose of it (twenty minims) in water, instructing the nurse to repeat the dose in an hour's time. On visiting the patient the next morning I found her to be altogether better; the vomiting became less frequent after the second dose of the chlorobrom, after the third dose she went nearly four hours without retching, and in the meantime had taken and kept down several spoonfuls of meat extract and of milk. A fourth dose was given, and from that time the vomiting entirely ceased; with careful feeding the patient was practically well in three days' time and partaking freely of light and easily digested foods.—I am, Sirs, yours faithfully,

J. ALFRED MASTERS, M.D.Durh., M.R.C.P. Lond.

Kensington, W., Oct. 31st, 1893.

ETIOLOGY OF ALOPECIA AREATA PARASITICA.

To the Editors of THE LANCET.

SIRS,—When shall we arrive at the true etiology of alopecia areata parasitica? A new theory is being promulgated that the disease is due to "an attenuated form of parasite after true ringworm." Is this possible? Those dermatologists who have studied the disease for years microscopically and have and are devoting their attention to the cultivation of the "bacillus trichophyton" cannot possibly accept this theory. No doubt alopecia areata parasitica—and I say parasitica as there are other forms of alopecia areata due to innervation and topical nerve disturbances—is of the same class, but it is not of the same variety, as cultivation researches will readily show. How is it that we so often see alopecia areata parasitica in the adult and so comparatively seldom in the child, and *vice versâ?* How often we see tinea trichophyton in the child and so seldom in the adult. The objective symptoms are certainly almost distinctive and diagnostic to those of us who have seen much of this affection.

I am, Sirs, yours faithfully,

Harley-street, W., Nov. 7th, 1893. JAMES STARTIN.

THE ANNUAL MEETING OF THE ROYAL COLLEGE OF SURGEONS.

To the Editors of THE LANCET.

SIRS,—I shall be glad if you will permit me to correct a slight error in your report of what I said at the Royal College of Surgeons, by stating that the paper by Mr. Holmes in the *Medical Magazine* on a Teaching University for London, to which I referred, was published, not twelve years ago, as your report has it, but less than twelve months ago—namely, in the number of that magazine for last December.

I am, Sirs, yours truly,

Dulwich-grove, S.E., Nov. 7th, 1893. H. NELSON HARDY.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Hospital Sunday and Saturday Annual Meeting.

THE annual meeting of the supporters of the Hospital Sunday and Saturday Fund was held at the Town-hall on the 6th inst. The report of the committee showed that there was a slight falling-off in the total amount of the Sunday collections this year. The weather last Hospital Sunday (Jan. 8th) was of the most wintry and inclement description, having a very marked effect upon the attendance at church and chapel; but it shows the hold which Hospital Sunday has on the public that the collections, even on that very inclement Sunday, amounted to £6211. On only three occasions within the last twenty-three years has it been less, and it may be safely asserted that for no other objects except hospitals and medical charities would such a sum be raised annually. The Hospital Saturday Fund showed an increase, the total being £4470.

Exhumation of Dead Bodies at Kirkdale Gaol.

It was not until 1835 that Liverpool became an assize town. From that year until very recently all executions took place at Kirkdale, outside or inside the building first known as the House of Correction, next as the Gaol, and lastly as Her Majesty's Prison, Kirkdale. It having been disestablished, and the buildings now being in process of demolition, it became necessary to deal with the portion of ground in which were buried the remains of all those who had been executed within the period of between fifty and sixty years during which the gaol was used for this purpose. As is well known, the mode of burial adopted with the bodies of executed criminals is the most perfect of any. A thin shell is used which is partly filled with quicklime. This latter is also mixed with the earth around the coffin, and the burial takes place within a few hours after death. Consequently the remains were few and were reduced to skeletons even in the case of those executed within recent years. But it was manifestly proper to remove the earth in which all these remains rested to some burial ground for decency's sake and to avoid the scandal and alarm of any future discovery. They

were accordingly removed by night and in series of four or five each to the cemetery of Kirkdale. This is an additional proof of how successful burial can be in fulfilling its purpose when it is real burial in the earth in a perishable coffin. These remains were those of between sixty and seventy bodies which were all buried within a small piece of ground. Surely the bodies of executed criminals are not the only ones which should be buried properly—in accordance with sanitary laws.

One Inevitable Result of the Coal Strike.

The protracted strike of coal miners has already produced much distress, as must obviously be the case when thousands of those who ought to be bread-winners are idle. There is another very serious phase of the strike which must soon be keenly felt. The price of coals will be a most serious item in the expenditure of hospitals. The price of a very inferior description of coals is nearly 50 per cent. more than the price recently paid for those of the best quality, and double the price of the latter in Lancashire twenty years ago. Warmth being as essential to patients as food, coals are not an article of luxury but of necessity to hospitals as to other charitable institutions. It is lamentable to learn that there is no prospect of the strike coming to an end, and what this means may well be pictured.

Nov. 7th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

New Year's Improvements.

IF current rumour is to be credited, Manchester is to be the scene of several improvements, sanitary and otherwise, which have been projected on a colossal scale and which are promised to us during the opening months of the forthcoming year. In the first place, it is stated, on what appears to be reliable authority, that the Thirlmere scheme for supplying Manchester with additional water will be completed early next spring. It will be remembered that during the recent drought the corporation were almost at their wits' end to obtain a sufficiency of drinking water for the needs of the people, to say nothing of the scarcely less important matter of a water-supply for cleansing purposes, which in an old and not particularly clean city like ours is a serious consideration during such a hot and dry period of weather as that experienced during the summer. In past years it has been the boast of our medical officer of health that he has been able to keep the backyards and alleys of our slums well swilled and cleansed with pure water throughout the entire summer season, and that thus he has been able to hold in check the infantile diarrhœa which is always peculiarly fatal in those neighbourhoods. This year, however, the scarcity of water for drinking purposes has rendered it absolutely impossible to adopt this precautionary measure, and consequently diarrhœa has been unusually rife. This year, too, the cholera scare reached Manchester in earnest, and our city fathers were at one time not a little exercised in mind at the possibility of our city becoming the scene of a cholera epidemic. Fortunately we escaped such a catastrophe; but another year we may be less fortunate if it should happen that a few cases of choleraic disease should break through the first line of defence, as was the case this year, and that thus centres for the propagation of this terrible disorder should become established in our midst. It is obvious that when the additional supply of water from Thirlmere becomes available the authorities will have the means of cleansing the less healthy parts of our city and of thus minimising the danger of cholera becoming general in the event of a few cases being imported from abroad. The Ship Canal is to be completed some time in January, and it is believed that the entire waterway will be open from Manchester to the sea at Eastham, so that vessels of even the highest tonnage will be able to obtain direct access to the Manchester docks without the necessity of in any way disturbing their cargo on entering the canal. The important sanitary question, which has been so admirably treated of by your Special Correspondent, is the one drawback to this splendid undertaking. Manchester and Salford people are not a little anxious about the condition of the water in the docks, and it is certainly desirable that really stringent measures should be adopted for preventing the pollution of the water by the numerous manufacturing firms that crowd the banks of the Irwell and its tributaries above Manchester. The Labourers' Dwellings Scheme, or at any rate that part of this somewhat extensive scheme which has been taken in hand by the corporation, is another sanitary improvement which is at last approaching completion. On one side of the Oldham-road, one of the widest and best thoroughfares leading out of Manchester, a large and imposing block of labourers' dwellings may be seen rearing its head above the neighbouring buildings. The block consists of a vast quadrangle—open at each quarter for ventilation—each of the four sides being rows of labourers' dwellings, five storeys in height, and consisting of one, two, and three-roomed tenements. With the exception of the single-roomed dwellings all the tenements are so constructed as to permit of through ventilation from front to back; each pair of tenements is provided with separate water-closet and scullery accommodation, which is so arranged as to be common to the two tenements, and to these alone. It will thus be possible for the corporation, as owners of the buildings, to secure that due cleanliness is observed by the tenants. It is understood that one side of the square (which is already roofed in) will be ready for occupation and will be opened somewhere about Christmas.

Infectious Disease in Manchester.

According to the recent weekly returns, Manchester is at present in anything but a satisfactory condition in regard to infectious disease. Diarrhœa has ceased, or nearly so, for this year, but ever since the commencement of September both diphtheria and enteric fever, and scarlet fever also, have been far more prevalent in Manchester than they should be. With regard to diphtheria, it is only fair to say that Manchester shows no greater increase in reported attacks than do several other great English towns, especially London; but enteric fever still appears to cling to certain of our poorer districts in a manner which is doubtless disquieting to our sanitary authorities, and its increase at this time of the year seems to be looked for in Manchester as almost a matter of course.

Nov. 7th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Munificent Gift of Lord Armstrong and Bequest of Lady Armstrong.

LORD ARMSTRONG has given £1000 towards the extension of the Northern Counties Deaf and Dumb Institution, Newcastle; and at the last meeting of the governors of the Royal Infirmary, Newcastle, it was announced that £2000 had been received as a donation to the funds from the estate of the late Lady Armstrong.

Northallerton Cottage Hospital.

At the late annual meeting of the subscribers of the Northallerton Cottage Hospital it was announced that the North-Eastern Railway Company had made a donation of £25 as a recognition of the services rendered to the fireman who received such serious injuries in what is known as the Thirsk railway accident. The sum of £600 had been raised by the North Riding Rural Nursing Association to perpetuate the memory of the Hon. Chas. Dundas, in order that the present building should be enlarged or that accommodation should be afforded for the nurses of the Association. The hospital had been conducted to the complete satisfaction of the committee.

The New Lunatic Asylum at Sunderland.

The foundation stone of the new lunatic asylum for Sunderland at Ryhope was laid last week by the Mayor of Sunderland. It is now stated that the building will, when completed, cost £77,000, including the land, and will accommodate 350 persons.

Ambulance Work in the North.

An important ambulance meeting, connected with the North-Eastern Railway Company, has been lately held at Gateshead, being presided over by a director of the company. It was stated that about four years ago the first class was formed, and that since then nearly 100 members had become qualified to render first aid. The services which they had thus been enabled to render had proved to be of the utmost value to the employés of the company and others. At Corbridge, also, a class has been recently formed under influential auspices.

Another Paraffin Lamp Fatality.

If the public could be made to understand the need of greater care in the handling of paraffin lamps it would be to their advantage. A servant-girl died at Newcastle Infirmary the other day from injuries received in blowing out a lamp.

Small-pox in West Durham.

A serious outbreak of small-pox has occurred at Leadgate and an adjoining place called "Happy Land," no fewer than sixteen cases having been reported in three days. The disease first appeared on Thursday, the 2nd inst., when four cases were removed to the Leadgate Fever Hospital. On Friday another four were removed, including two from Happy Land. At a late hour on Saturday last six more patients were admitted. There had been no case of small-pox in Leadgate for more than a month previously, and the resident practitioners are at a loss to account for the outbreak.

Newcastle-on-Tyne, Nov. 7th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

Edinburgh Health Lectures.

PROFESSOR MACFADYEAN of the Royal Veterinary College, London, delivered the first of a series of three lectures on "Diseases of Animals Transmissible to Man" in the Free Assembly Hall on Saturday last. The chair was occupied by Lord Provost Russell, M.B., F.R.C.P. Edin. The lecturer devoted this lecture to the diseases transmissible to man through contact with animals. He first took mange or itch and showed that it was communicable to man from the horse, dog, and cat and less frequently from the pig, ox, sheep, and goat. Dogs and cats with mangy skins ought not to be admitted into rooms inhabited by human beings, and where contact was unavoidable, as in those having charge of such mangy animals, the hands and arms ought to be washed with carbolic soap after each contact. He next took up ringworm and explained how in one or other form it was found in the cat, or in young cattle, or in the horse, and that it was readily transmissible to man. Next he dealt with glanders and farcy and said that in respect of incurability and ease of transmission to human beings it ranked as one of the most important diseases, common to man and animals. The disease was of less interest to an Edinburgh audience than to the inhabitants of Glasgow or London, for Edinburgh had a clean bill of health so far as this disease was concerned. Every year a number of people, chiefly grooms, carters, and coachmen, lost their lives through glanders, and in nearly every instance the disease was caught through discharge from the nose or from a farcy sore having been brought into contact with the hands and carried to the nose. It would, he held, be easy to stamp out glanders in Scotland. Last year, of 79 cases of glanders in Scotland, 77 occurred in Lanark. Glasgow was the breeding place of glanders for Scotland as London was for England, and if a little more energy were shown by the Lanarkshire local authorities the last case would soon be seen there. In conclusion, he dealt with rabies or hydrophobia, the most distressingly painful of the diseases that man might contract from the lower animals. He referred at some length to the great work that M. Pasteur had done in this department, and showed that by the treatment introduced by him less than 1 per cent. of those bitten by rabid animals died, while experience had shown that without this treatment 12 or 14 per cent. of those bitten succumbed.

Nov. 6th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Dublin Hospital Sunday Fund.

COLLECTIONS in aid of this fund will be made on Sunday next, the 12th inst., in 240 churches in Dublin and districts. The sum obtained last year amounted to £4262 10*s.* 5*d.*, being £279 11*s.* over the preceding year. This was a satisfactory increase, and it is to be hoped that the amount collected this year will be fully up to, if it does not exceed, that sum.

Royal College of Surgeons.

The prizes obtained by the successful students of the schools of surgery were distributed last week by Mr. Edward Hamilton, President of the College. After addressing some words of advice to the students generally he referred to the great flaw in the system of preliminary education. Until this was improved they could not hope for advancement. This was the point on which the whole education must hang, and he was sorry to say that those who had the guidance of medical students before they entered their class-rooms were still not fully alive to this fact. In the last preliminary examination, notwithstanding repeated warning, the answering had been exceedingly bad, as shown by the large amount of failures. It required thorough training to make a man fit to enter with success into medical classes. I may mention in corroboration of Mr. Hamilton's statement that at the last preliminary examination held by the College only nine passed in all the subjects, thus leaving a very large number of candidates to defer their medical studies for another year.

National Hospital for Consumption.

The first general meeting of this hospital, which has recently been incorporated under the Companies Acts, 1862 to 1890, was, in compliance with the requirements of the statute, held on the 3rd inst. In presenting the report, the chairman congratulated the members upon the progress that had been made towards the completion of the project in which they all took so much interest, and which they believed would prove to be so beneficial to the community. The Association has been incorporated, and the site for the hospital has been chosen and is now ready to be conveyed to the Association. Plans have been prepared and approved, and it is hoped that in a very short time the building operations will be commenced. The lease of the premises near Newcastle and Newtownmountkennedy, in county Wicklow, on which it is intended to build the hospital, is ready and awaits the signature of Lord Fitzwilliam and the seal of the Association.

Death of Dr. Patrick Charles Baxter of Dublin.

I record with sincere regret the death of Dr. P. C. Baxter, who died at his residence in Lower Baggot-street, Dublin, on the 5th inst., at the comparatively early age of fifty-five years. His illness was of short duration, he having attended a meeting at the hospital with which he was connected a few days previously. He was a Doctor in Medicine of the University of Dublin and a Fellow of the Royal College of Surgeons in Ireland, senior surgeon to the Hospital for Sick Children, and late governor of the Apothecaries' Hall of Ireland. Some years ago he acted as a Demonstrator of Anatomy in the Ledwich School of Medicine, and more recently as an Examiner in Materia Medica and Pharmacy at the Royal College of Surgeons. Dr. Baxter was highly esteemed by a large circle of friends for his social qualities and professional abilities.

Richmond, Whitworth, and Hardwicke Hospitals.

The annual dinner of the medical staff took place last Saturday in the Shelbourne Hotel. The toasts included "The Universities" and "Royal Colleges" and "The Richmond, Whitworth, and Hardwicke Hospitals." The dinner was well served, and those present passed a very pleasant evening.

Death of Mr. C. G. Westropp.

Mr. Cecil G. Westropp, J.P., died on the 3rd inst. at his residence, in Grosvenor-terrace, Monkstown, aged thirty-seven years. He formerly had a good practice in the North of Ireland, but, his health failing, he was obliged to give it up and live at Monkstown, near Dublin. He leaves a wife and three young children to mourn their loss.

Hospital for Infectious Diseases in Belfast.

At a meeting of the city corporation in committee held on Nov. 2nd, Dr. Alderman Graham, chairman of the Public Health Committee, moved that the corporation recommend the establishment of a home for the treatment of infectious diseases, and submitted a report pointing out the necessity for such an institution. He showed that the establishment of such a hospital was needed in case the council adopted the Notification of Infectious Diseases Act, and that the medical inspectors of the Local Government Board had recommended its being built. It was estimated that the cost of constructing and maintaining such a hospital would be £20,805. Sir David Taylor, one of the aldermen and chairman of the board of guardians, explained that steps had been taken to provide a separate entrance to the hospital at the workhouse for poor patients, and considered that this would allay the adverse feeling of the residents in the vicinity concerning hospitals. I regret very much to say that the motion of the chairman of the Public Health Committee was lost by 13 to 6. Belfast is the only large city in the United

Kingdom where there is not such a hospital provided for the citizens.

Queen's College, Belfast.

On Thursday, Nov. 2nd, Dr. Byers, the new Professor of Midwifery and of Diseases of Women and Children, was installed in his chair and received a most cordial reception from a very large audience of colleagues, students, and medical practitioners who filled the midwifery class-room.

Nov. 7th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Curability of Tuberculous Peritonitis.

MOST modern writers agree in regarding the absorption of tubercle deposited on the surface of the peritoneum as a frequent occurrence. Long before laparotomy was heard of as a remedy for this condition, inunction of the abdominal parietes with liniment of mercury or with oleate of mercury had determined many a cure at Guy's Hospital. From a discussion that arose on this subject at the Société Médicale des Hôpitaux on the 27th ult. it would appear that a variety of therapeutical means suffice to bring about the same happy result. Thus, M. Rendu presented a woman who had been cured by intra-peritoneal injections of camphorated naphthol. Admitted into the ward in the month of May with considerable ascites and other unmistakable signs of tuberculous peritonitis, seven Pravaz syringefuls of pure camphorated naphthol were introduced into the abdominal cavity after this had been emptied of seven litres of fluid. Some fever and pain resulted, but both disappeared in a few days. No return of the effusion was noted, and the altered condition of the abdomen enabled a diffused mass of tuberculous deposit to be distinguished. This mass (*gâteau*) became gradually absorbed, and by Aug. 15th the abdominal walls had regained all their normal suppleness. At present it would be impossible for any physician to suspect the former existence of tuberculous peritonitis. In the course of the discussion that followed the reading of M. Rendu's paper M. du Cazal remarked that of all manifestations of tuberculosis that affecting the peritoneum was the one that had the greatest tendency towards recovery, and this under the most diversified forms of treatment—e.g., blisters, local applications of tinctures of iodine or of collodion, &c. Stranger still, M. Le Gendre said that he had seen tuberculous peritonitis in a young girl disappear completely in consequence of regular exercise on a tricycle. With regard to the employment of camphorated naphthol, both MM. Le Gendre and Fernet uttered a note of warning, the former stating that he had more than once seen animals into whose peritoneal cavity this substance had been introduced succumb in convulsions.

Rötheln.

At the same meeting[1] M. Sevestre stated that from notes he had recently taken of an epidemic of German measles at a Paris lycée he believed himself in a position to formulate the following conclusions: Epidemics of rubeola are characterised by successive outbreaks separated the one from the other by an interval corresponding to the period of incubation—here a fortnight on an average. The disease is infectious from the beginning, like measles, and isolation of the patients is too late a measure, for they have already spread around them the specific germs. The desideratum is isolation of children who have been in contact with cases. These exposed persons should be closely watched, especially from the twelfth day after exposure, in order that they may be isolated on the appearance of the initial symptoms. Unfortunately, prodromata are, in the majority of cases, wanting, and preventive isolation is accordingly difficult to put into practice. Once the disease is over—i.e., in about eight days—the patient is no longer dangerous to his neighbours, and he may be safely allowed to mix with his comrades. On this point M. Sevestre differs *in toto* from M. Ollivier, who insists upon a quarantine of twenty days and the taking of an antiseptic bath, as well as the closing and the disinfection of the school that has been the *locus* of the disease. In the epidemic observed by M. Sevestre the patients remained in the infirmary for a period of from seven to twelve days and were then allowed to resume their studies. No instance of infection was noted. Disinfection of the room, furniture, &c., is, according to him, unnecessary, the specific microbe being, like that of measles, endowed with a very limited vitality. M. Juhel-Renoy laid stress on the importance of an early diagnosis and said that the apyrexia so commonly attending rubeola was an altogether exceptional phenomenon in measles. If, then, a child affected with a measly eruption was apyretic, rötheln might be almost certainly diagnosed. Of four cases observed by M. Rendu in the same family, two had fever and two had none.

[1] Société Médicale des Hôpitaux, Oct. 27th.

The late Professor Trélat.

A movement has been started among the friends and old pupils of the late regretted surgeon of the Charité Hospital having for its object the placing of his bust in the *Salle des Actes* (Notice Room) of the Paris Faculty. Such a pious project will, I am sure, meet with the approbation and support of all who, like myself, were privileged to attend the practice at the old Charité of this remarkably eloquent surgeon.

Staff Changes at Hospitals.

The recent death of Professor Le Fort has necessitated certain changes among the surgical staff of the hospitals. Thus Professor Duplay removes to the clinical wards of the Hôtel-Dieu, and Professor Tillaux to those of the Charité. M. Terrier, who has accepted the vacant chair of Clinical Surgery only under certain conditions, at present unrevealed, will soon be transferred to the distant Hôpital de la Pitié. By the way, it is not perhaps known in England that M. Terrier was formerly a veterinary practitioner at the celebrated school of Alfort.

Nov. 7th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Investigation into the Origin of Blood-corpuscles.

THE much-discussed question of the origin of the corpuscular elements of the blood is the subject of a paper by Engel[1] which is illustrated by some very good coloured plates. Engel examined the blood of fœtal mice at various stages of development, as also that of human embryos, of a prematurely born child, and of some cases of leucæmia. The fœtal blood was examined as quickly as possible after death, and often the preparation was dry within five to ten seconds. The method employed was strictly that with which Professor Ehrlich's name is associated. In the blood of an infant prematurely born at the seventh month, which lived for sixteen days, Engel found on the day after death: (1) normal, biconcave, red corpuscles; (2) red corpuscles of globular form from which a nucleus, invisible on account of its mantle of hæmoglobin, finally extricated itself as (3) a more or less completely developed white corpuscle. No blood plaques were found in this blood, and the number of leucocytes was small in comparison to that of the red cells.

Iodine Trichloride as a Hypodermic Injection in Puerperal Septicæmia.

Gottschalk publishes a note[2] on the use of iodine trichloride in cases of puerperal fever. It has been asserted that this salt is so irritating that it cannot be used hypodermically. Gottschalk has employed it in three cases of puerperal fever, injecting it deeply into the gluteus muscle without any painful result. He used a 1 per cent. solution, of which from 1 to 2 c.cm. were injected once or twice daily. Two of the cases recovered.

New Departments in the Charité.

Two new departments have been formed in the Charité, one for diseases of the nose and throat, with Professor B. Fraenkel as chief, and the other for aural diseases under Professor F. Trautmann. The number of beds in the Charité is about 1780.

The Date of the Introduction of Syphilis into Europe

This subject is discussed by Professor Binz.[3] The conclusion he comes to is that constitutional syphilis was unknown in Europe before 1493, in which year Columbus arrived at Barcelona from Haiti and brought with him the disease, which his followers had contracted among the Haitians. It seems that the complaint had been known and general for a very long time in Haiti and was not at all

[1] Archiv für Microscopische Anatomie, Band xlii., Heft 2
[2] Deutsche Medicinische Wochenschrift, No. 44.
[3] Ibid.

severe, but when infected upon the fresh soil of the Spanish race it raged furiously.

Amœbæ in Human Intestines.

Quincke and Roos[4] communicate the results of investigations into the occurrence of amœbæ in human intestines. Amœbæ do not play any part in causing epidemic dysentery such as is seen among armies in the field, but are found in tropical or endemic dysentery. Two cases are described in which enteritis of long standing seemed to be caused by amœbæ. In one case they were found to be pathogenic for cats when introduced into the bowel and also when the encysted form was given by the mouth. In the second case those found in the stools did not affect cats at all. Besides the already known form—A. coli Lösch v. coli felis—there is another form of amœba, amœba coli mitis, which gives rise to a milder form of enteritis and is not pathogenic for cats. Distinct from both of these is a third form—amœba intestini vulgaris—which is found in the intestines of healthy persons and is harmless. The best treatment was found to be calomel, but relapses occur, because calomel appears to favour the encysting of the amœbæ.

Nov. 7th.

RUSSIA.

(FROM OUR OWN CORRESPONDENT.)

The Cholera Epidemic in St. Petersburg.

DURING the past fortnight the daily returns of cholera in St. Petersburg have shown a very marked improvement upon those of the preceding weeks. In the week ending Oct. 14th (Old Style) there were 124 cases of cholera and 59 deaths from the disease, as compared with 157 cases and 72 deaths in the week before. In the week ending Oct. 21st a still further decline is noticeable, the figures being 54 cases and 27 deaths, or a daily average of 8 cases and 4 deaths. The number remaining under treatment at the last-named date was 75.

New Physiological Institute in Moscow.

On Oct. 10th a new Institute of Physiological Histology was opened in Moscow. The building is stated to have cost 120,000 roubles (£12,000), and a further 10,000 roubles have been spent in furnishing it. It is said to be the best fitted institution of the kind in Europe.

Introduction of the Decimal System of Weights and Measures.

Next year the use of the decimal system of weights and measures in all pharmaceutical matters, in place of the so-called Nuremberg system hitherto in use, will become compulsory throughout Russia. For the past four years instruction in this system, as well as in the old system, has been obligatory in all the Russian universities, so that the change will not take place without sufficient warning.

Closing of the Hygienic Exhibition.

The Hygienic Exhibition, which has been open all the summer, was closed on Oct. 10th (22nd). The closing ceremony took place to the strains of the "Marseillaise" and amid prolonged cries of "Vive la France," which, if not very relevant, sufficiently indicate the one prevailing topic which occupies men's minds here at the present time. The Exhibition is generally held to have been a success, and the Russian National Health Society (to whose initiative it was due) has decided to found a permanent Museum of Hygiene in St. Petersburg. A large number of objects shown at the Exhibition have already been presented to the society as a nucleus for the museum.

St. Petersburg, Oct. 22nd (Nov. 3rd).

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

Quarantine Department.

ON Nov. 1st the new decisions of the late International Congress at Dresden will commence to take effect. One of the most important points which affects this country is that the number of Egyptian representatives will be reduced from nine to four. These four are now two Englishmen, a German, and a Frenchman, and they hold the respective posts of president and vice-president of the Quarantine Board, sanitary inspector of Alexandria, and chief veterinary adviser to the Egyptian Government. It is hoped that one of their first duties will be to re-make the laws relating to the admission of cattle into Egypt, and with this might very well be considered the advisability of enforcing police inspection of imported dogs. There was a time when rabies and hydrophobia were unknown in Egypt, but during the last seven years many undoubted cases have been met with. During the past summer an English officer and his native servant were bitten by the former's pet dog, and have since undergone the Pasteur treatment in Paris. There have been many complaints from passengers who have had to undergo two or three days' quarantine in the lazaretto at Alexandria. In cases where the steamer happened to be remaining in the harbour passengers used to be allowed to remain on board to take their purgatory comfortably; but in consequence of cholera having apparently been concealed on an Italian vessel this privilege was lately withdrawn. Early in October an English ship reached Alexandria with some thirty-eight Europeans on board. The ship had stopped at Naples, and though no one had landed or embarked there three days' quarantine was enforced at the lazaretto. It is stated that the railway carriages which convey passengers from the landing-place to the lazaretto are very dirty and evil-smelling, and that in the buildings provided for first-class passengers there are no baths, too few waterclosets, which are kept in a very filthy state, and an insufficient number of bedrooms, so that six or seven people have to share a room. Among minor complaints there is that of no supply of milk or other facilities for children's requirements and that very little hot water can only be obtained with great difficulty. There are, however, no complaints about the restaurant, which is fairly good and not expensive.

Absence of Cholera.

Egypt may again be congratulated upon having escaped a visitation of cholera, in spite of the thousands of pilgrims at her very doors. The next time there is a cholera congress in Europe, attention might surely be turned to the Mussulman habit of bringing Zem-zem water polluted by sewage into countries anxious to avoid cholera. All such water should be confiscated in the desert, and I am assured that no Mahommedan would think himself seriously aggrieved in consequence. Pilgrims bring back bottles of this water for their friends, exactly as Europeans collect water of the Jordan for their untravelled neighbours. This Jordan water is sometimes used at Royal christenings in England, where it is quite harmless; but the pious Turk or Egyptian is apt to keep the Zem-zem water as a precious cordial for use during illness or to break his fast at the end of the trying month of Ramadan, when the bottled-up germs would be specially apt to prey upon his exhausted interior. In September there was a case suspiciously like true cholera in one of the outlying parts of Cairo, but as careful search failed to find any comma bacilli the death was declared not to be due to cholera. The patient died forty-eight hours after being attacked and never suffered from cramps, though there were vomiting, diarrhœa, sunken eyes, aphonia, thirst, dyspnœa, pulselessness, and suppression of urine. The medical men seeing the case, who had had a previous experience of cholera, believed that it was not the real disease, but suspicion was created by finding that in the same house there were pilgrims who had returned to Cairo from Mecca only four days before. Moreover the effects of these pilgrims included Zem-zem water, dates from the Hedjaz, and the clothing and other property of another pilgrim who had died from cholera in the Holy Places. It is needless to say that the precautions taken were of the most careful kind. The house and its cesspool were cleaned, disinfected, and whitewashed, as many things as possible were burnt, and the people of the house were kept under observation in a tent in the desert for several days.

Tantah Fair.

The greatest festival at Tantah in honour of a modern Hercules, who is enshrined in a mosque there, unfortunately takes place at the end of August and beginning of September. It is attended by some 95,000 Egyptians, who travel by railway, besides an incalculable number who arrive by road. Of late years it has often been suppressed because of the obvious danger of a crowded fair at the height of the potential cholera season, but this year the Government decided to listen to the clamours of those who were anxious to celebrate the festival. Mahmoud Pasha Sidky was sent to organise all sanitary details, and it is said that the fair has never been so well arranged before. There were 1050

[4] Berliner Klinische Wochenschrift, No. 45.

tents, with temporary roads laid out between them, and these were swept daily and then watered with a solution of carbolic acid. Portable earth latrines were erected behind the tents, and no cattle were allowed to be slaughtered inside them. As a consequence of this rule the number of oxen and sheep killed at the slaughterhouse during the fair was 2200, whereas last year the number was only 800, the large deficiency having presumably been slaughtered in or around the dwelling tents. This year two camels were surreptitiously killed in the tents, but their flesh was seized and given to the poor, which brought some temporary popularity to the sanitary officials. The open bath for ablution in the mosque was furnished with fresh water daily, but this filthy method of bathing ought to be abolished by law, and taps provided for the use of the faithful, as in Turkey and India. The mosque is so crowded that the whole neighbourhood of the ablution tank is one impassable latrine, and yet many visitors take water home with them from this tank for use in future illnesses. The deaths during the fair this summer were only four, while in previous years they have often reached twenty.

Actinomycosis.

A man with typical actinomycosis of the cheek has lately been successfully treated by iodide of potassium in large doses in Mr. Milton's wards at Kasr-el-Aini. Two carious teeth were extracted, but no other surgical interference was necessary. This is the first time that the disease has been discovered in man or cattle in Egypt, as it is also probably the first time that actinomycosis and "Madura foot" have been reported from the same hospital.

Cairo, Oct. 31st.

Obituary.

SIR ANDREW CLARK, BART.,

M.D. ABERD., F.R.S., LL.D., &c., &c.,

PRESIDENT OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

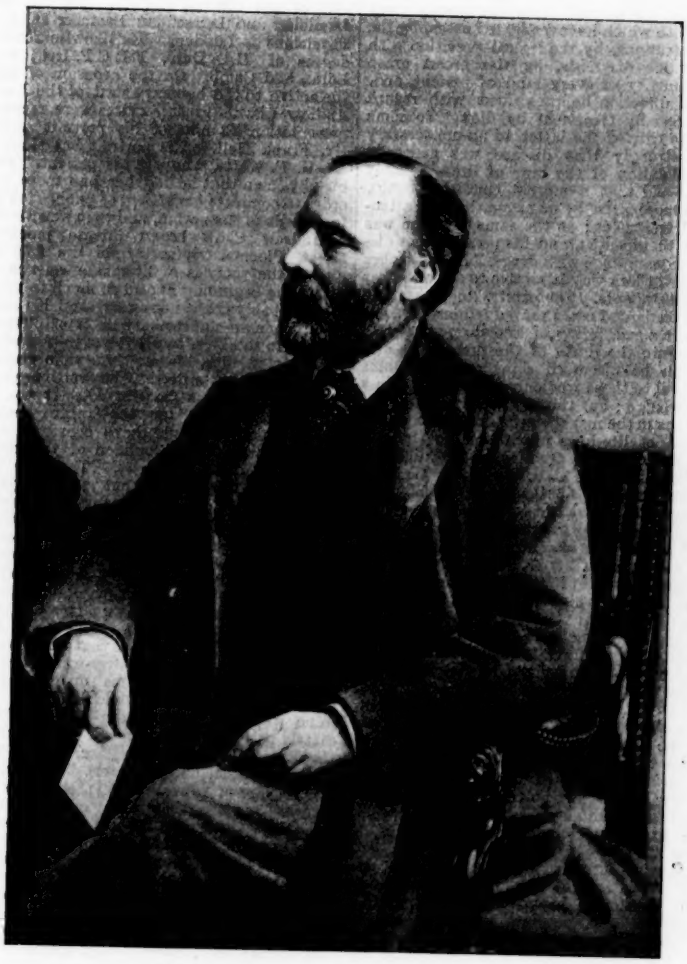
IT is with the deepest regret—a regret that we know is shared not only by the whole of the medical profession but by an unusually large and distinguished section of the public—that we announce the death of Sir Andrew Clark, the President of the Royal College of Physicians. In a manner, the death of one so busy, so energetic, so full of life, and so resolute to use for good all the opportunities which that life gave him must always seem to be a scarcely credible occurrence; yet the sad news of Monday afternoon can have come as a surprise to no one, for the serious nature of his illness had been apparent from the first, and those who knew were in no way astonished to find that the trifling improvement which we were able to chronicle at the end of last week proved only to be the prelude to the final collapse.

Sir Andrew Clark was born on Oct. 28th, 1826, and was the only child of a surgeon of the same name who practised at St. Fergus, in Aberdeenshire. He was born in the city of Aberdeen, but knew practically nothing of either parent, for his mother did not survive his birth and his father died when their child was but four years old. These circumstances led to his adoption by two uncles, by whom he was reared and educated at Aberdeen. By them he was sent to a local school, and thence to Dundee, where the future head of the medical profession served his apprenticeship in a druggist's shop. In Aberdeen also he began his medical career proper, but shortly afterwards migrated to the larger school at Edinburgh. In the Extra-Academical School of that city he gained a series of prizes, and may be said to have inaugurated his career of unbroken success and untiring and enthusiastic energy. He there secured consecutively the first medals in anatomy, physiology, chemistry, botany, materia medica, surgery, pathology, and practice of physic, and he eventually became assistant to Dr. Hughes Bennett in the pathological department of the Royal Infirmary. Dr. Hughes Bennett, who was then engaged upon the researches that made his name famous far beyond the northern university which was their scene, exercised a decided influence on the after career of his pupil, for it was doubtless from his early master that Andrew Clark derived the accuracy and patience in pathological work which, by obtaining for him his first important appointment, may be said to have laid the foundation of his future success. While in Edinburgh he was also assistant demonstrator of anatomy to Dr. Robert Knox in the final course of lectures delivered by that professor. It will thus be seen that in his student life, in addition to being a great prize-winner, Andrew Clark received a thorough practical grounding in the two sciences upon which most medical knowledge is based.

It was at this time, when he was about twenty-two years of age, that symptoms of pulmonary trouble first made their appearance, and it was under their threat that he came to the decision to join the navy, so that he might obtain the benefits of an out-door life. He made more than one voyage, with great advantage to his health, and he was then appointed pathologist to the Royal Naval Hospital at Haslar. This post he held for four years, during which time he had complete management of the pathological department, and delivered a series of lectures upon pathology and the use of the microscope. It is interesting to note that at Haslar he had for a colleague Professor Huxley, who was at that time also an officer in the navy and professor of biology at the hospital school. Another contemporary of Andrew Clark at Haslar thus describes him in his younger days: "He was," he says, "of a highly vivacious temperament, and showed the *perfervidum ingenium Scotorum* not only in the warmth of his arguments, but in the sensational, almost histrionic, style of his abundant flow of speech. Outside pathology, his favourite study was metaphysics, but for his age he was well read in many subjects." By which it will be seen that in his youth at Haslar he very closely foreshadowed his later life in more ways than one.

In the year 1853 Andrew Clark retired from the service on his appointment to the curatorship of the museum of the London Hospital. He was attracted by the advertisement for candidates, and was successful in his application; a result which is not to be wondered at when his practical nature of his claims is recalled. He was at that time still unqualified, and he has frequently said that he had then no particular intention of becoming so, or of practising his profession, his inclinations lying rather towards devoting himself entirely to pathology. His own words were that he designed "to write a pathological work and construct an atlas of pathological specimens and then to die." With these ideas of the importance of the study of pathology, he applied himself to the duties of his new post with zeal, and succeeded in inspiring the students with an interest in pathological and histological work not at all common at the London Hospital or any other hospital in those days. In 1854 he took the degree of M.D. of Aberdeen, and was admitted a Member of the Royal College of Physicians, and in the same year his election to the staff of the London Hospital as assistant physician drew him perforce into the domain of clinical medicine, for which his accurate study of normal and morbid anatomy had well prepared him, even though his private inclinations did not point in that direction. His obvious enthusiasm and the thoroughness of his work had attracted the attention of the officers of the hospital, and when in March, 1854, there was a vacancy for an assistant physician he was encouraged to apply for the appointment by Mr. Curling, at that time one of the most prominent members of the staff. It must be remembered that Andrew Clark's opportunity occurred in "the good old times," not however, so very old, when such appointments were made the subject of regularly contested elections. The competition was particularly keen, and his candidature was warmly espoused by the students, who recognised his fitness, and to whose efforts it was almost entirely due that he was successful. The feeling in his favour was not so unanimous among the staff, who seem to have been swayed rather by pity than by the merits of the case in electing him; for the story that some of those concerned in the decision between the candidates said with reference to his appointment, "Let Clark have it—he is only a poor Scotchman and has not long to live," is literally true. This little episode made a great impression on his mind, for he frequently alluded to it in his lectures and to his friends. There is no doubt that at this period of his life he was in a critical condition of health and that his personal appearance testified to his physical frailty. His devotion to his pathological studies had told upon him, and he had quite recently returned from a voyage undertaken

THE LATE SIR ANDREW CLARK, BART., M.D., F.R.S.



From a Photograph by Messrs. Elliot and Fry.

to counteract pulmonary weakness. In speaking of the appointment and also of his rehabilitation after his delicate youth, Sir Andrew Clark said in one of his addresses reported for THE LANCET two years ago: "I went out to Madeira to die, but I did not die, and on my return I got the appointment, and now I am the only one living who was then on the staff of the hospital." His work in the out-patient department of the London Hospital was characterised by thoroughness, and, as all good out-patient work must be, by rapidity of diagnosis. To this work he added that of pathologist, and later, on the resignation of Dr. Carpenter, that of lecturer on physiology. In 1858 he was elected a Fellow of the Royal College of Physicians, and in 1866 full physician to the London Hospital. In his hospital practice Sir Andrew Clark was characterised by the thoroughness with which he investigated cases, by the acuteness of his observations, by the logical precision with which he arrived at his diagnosis, by the broad grasp he had of the individuality of every kind of patient, and, lastly, by the minute direction he prescribed with regard to the treatment, especially treatment by diet. To some it might seem that he carried the latter to an unnecessary point, but he held strongly that disease was generally the outcome of the violation of the laws of life—probably of the simpler laws—and that a morbid condition could, therefore, be rectified more often by management and attention than by medical treatment; at the same time, he was a most accomplished therapeutist, and his prescriptions displayed an intimate acquaintance with drugs. As a teacher in the wards Sir Andrew Clark was attractive to all, but most attractive to the senior students. The painstaking, searching care with which he investigated cases proved tedious to those who only required such a smattering of knowledge as would enable them to pass into the ranks of the profession, and the detail with which he discussed signs and symptoms of disease did not appeal to those who only desired to possess the minimum of knowledge; but those who listened to his teaching learned lessons in the management and treatment of disease which proved of life-long importance to them in private practice, for, as far as was practicable, he laid down for his hospital cases the same elaborate *régime* that distinguished his treatment of private patients. His examination of a case before a class was an artistic performance. In the lecture theatre he appeared at the greatest advantage of all. The grasp he took of a case was complete, and all its varied bearings would be conveyed to his audience with perfect lucidity, by logical arrangements of facts, and by remarkable facility of expression. He was at his best, perhaps, in lecturing upon diseases of the pulmonary, renal, or digestive systems; but whatever subject he spoke upon he made his own, and his presentation of it was certain to be forcible and absolutely clear. As an author Sir Andrew Clark must not be judged by the weight of the volumes which he has left behind him; rather by their intrinsic worth must he be considered. He was an exceedingly severe judge upon his own productions, justly priding himself on the accuracy of his style; and therefore nothing of his passed to the press which had not been subjected to severe revision. All his written works were characterised by the logical arrangement of ideas and neat facility of expression which characterised his spoken words. His name in literature will probably always be associated with the subject of fibroid phthisis. He had always taken a special interest in pulmonary disease, originally, it may be assumed, for personal reasons; he was the first physician to give full recognition to the clinical aspects and progress of cases of the chronic form of lung disease to which this name has been given, and he was contemplating a monograph on the condition at the time of his death, and already had, indeed, been assisted by Drs. Chaplin and Hadley in its preparation. His writings on renal inadequacy and catheter fever attracted attention, but the following brief list of his works will show the direction in which his pen more usually ran:—"The Anatomy of the Lungs," "Tubercular Sputum," "Evidences of the Arrestment of Phthisis," "Fibroid Phthisis," "The Work of Fibrinous Pleurisies in the Evolution of Phthisis," "The Theory of Asthma," "Pneumonia," "Renal Inadequacy," "Anæmia," "Mucous Disease of the Colon," and "Constipation"; while before the Royal College of Physicians his lectures on the "Anatomy of the Lung," "Pneumonia," and the "States of Lung comprehended under the Term Phthisis Pulmonalis," serve to show that, though in every way a general physician, his favourite subject for individual treatment was the pathology of the respiratory tissues. A detailed list of the appointments that he had filled and the honours that he had received will perhaps be most aptly placed here, as they were every whit as much the distinct result of his brilliant and unwearying hospital career as of his great success socially and in private practice. These were as follow: President of the Royal Medical and Chirurgical Society; Hon. President of the Navy Medical Examining Board; Consulting Physician and Lecturer on Clinical Medicine at the London Hospital; Consulting Physician to the East London Hospital for Children; Assistant Physician to the City of London Hospital for Diseases of the Chest; Physician to the London Hospital; President of the Metropolitan Branch of the British Medical Association, of the Medical Society of London, and of the Clinical Society. He was also the Croonian, Lumleian and Lettsomian Lecturer at the Royal College of Physicians of London. He likewise received the honorary degree of M.D. Dub., F.R.C.P. Irel., and LL.D. Aberd., Edin., and Camb. On the occasion of his retirement from the active to the honorary staff of the London Hospital, Sir Andrew Clark's great services were recognised by a public presentation to him of his portrait painted by the late Mr. Frank Holl. His portrait has since been painted by Mr. G. F. Watts, who was his patient. Mr. Watts informed his physician that he had but one more portrait to paint in order to complete his gallery of public men which he intended to present to the nation, and that was Sir Andrew Clark.

Andrew Clark began private practice in Montague-street, Bloomsbury, and from the first his connexion lay among the votaries of literature, science, and art. He did not at the beginning appeal so much to the wealthier classes, who probably could not understand his exactitude, and mistook it for an unnecessary habit of dictation; but to clever people, to thinkers, to all the over-worked in the branches of higher knowledge, his methods were grateful. These could understand that orders to be worth anything at all must be precise, and must be obeyed. It was, it seems to us, of excellent omen for the future that Andrew Clark's earlier patients should have consisted of the class most able to form a clear opinion of the character and worth of their medical attendant. The year 1866 was an important one to him. In that year—the year of his appointment as full physician to the London Hospital—an epidemic of cholera broke out in the eastern end of the metropolis. Dr. Clark's efforts in connexion with this epidemic brought him into contact with Mrs. Gladstone, and through her he became acquainted with the eminent statesman who from the time of their meeting constituted himself his trusted friend and trusting patient. Soon after this he moved to Cavendish-square, and almost immediately his practice became so large that it is no exaggeration to say that a life of complete ever-work never enabled him to keep pace with the claims upon his time. Sir Andrew Clark was essentially a public favourite. His own profession in no way under-valued him—a fact which is made immediately patent when we recall the position that he held in the Royal College of Physicians and at his hospital; but it was not because he was a great clinical teacher or a dignified and energetic official that the public thronged to him. It was because they were quick to detect in him the qualities that, above all others, they valued in their physician. They saw him attentive, eager, sympathetic, and in particular practical. He listened to their account of themselves, cross-examined them upon it, thoroughly investigated the case, formed his own opinion, and told them what that opinion was, what he believed could be done, and how to do it. And his directions, if elaborate, were always comprehensible, and always had a reason. Such precision and such tact could only be the result of two things—a wide knowledge of life and a thoroughly scientific acquaintance with his art. And he had them both. He had mastered many of the intricate problems of life and the ethics of living as completely as in those laborious student days he had made the secrets of pathology his own.

By the members of his own profession in every degree he will be remembered for his kindness and courtesy. Not only as a consulting physician was he able to enter into the difficulties of the general practitioner with unusual intuitive sympathy, but his valuable and over-loaded time was always at the service of his colleagues in his capacity as a private physician, and, although he would not have admitted the accusation, his purse was as generously offered as his time. His early training in a hard school had left him full of gratitude for his success, and desirous to display it by generous

attention to the claims of those whose work had met with less ample reward. His thorough self-surrender to his profession did not preclude him from interests outside, although it left him but little time to gratify them. He wrote in his carriage and during his numerous railway journeys, and he found time in a similar way for reading much of the standard literature upon theological and high philosophical subjects. It was to this practice that Mr. Gladstone referred in his speech at the Agricultural Hall, on Aug. 5th of this year, on the occasion of the distribution of prizes at the National Workmen's Exhibition: "I know," he said, "one of the most distinguished physicians at this moment—one of the most distinguished physicians of the day—and you know well how deep are the anxieties of that profession. But that physician goes from place to place and makes it his usual business to occupy these intervals with reading; and if you were to examine the books he reads you would find they were not novels or romances or comic verse, but treatises on metaphysics or theology. That is a strong illustration of the manner in which change relieves the attitude of the faculties, and in giving them a new application develops new powers and rests and refreshes those which had been in another direction too much drawn upon." In private life Sir Andrew Clark presented the most lovable qualities, and he effectively discharged the duties of an affectionate husband and parent. His life was an over-full one, and might possibly have been spared had he seen the importance of husbanding his strength, or, what is more probable, had he not considered that, despite all warnings, it was his duty to go on, even though over-exertion should lead to death at his post. He had not been without premonitions that he was over-taxed, as he had more than once suffered from slight fits of giddiness. On the other hand, he had been heard to say that "he had never known what it was to feel tired," which absence of the danger signal may have counted for something in his sudden physical failure.

From the outset of his career as a physician Andrew Clark was in the closest connexion with the Royal College of Physicians. As stated above, he delivered the Croonian, Lumleian, and Lettsomian lectures. He was Councillor, Examiner in Medicine, Censor, and President. He was elected President on March 26th, 1883. The election was one which had created considerable interest, for opinion as to who was best fitted to occupy the position filled during the preceding seven years by Sir William Jenner was much divided. The first ballot cast by the assembled Fellows was indecisive, and on the second ballot Sir Andrew Clark was chosen by a majority of 8 votes (79 to 71) over the present President of the General Medical Council. And most zealously and honourably has he justified that momentous election, to the entire satisfaction of the College and of the profession of which this office is virtually the head. In the present year the College testified to its confidence in him by electing him for the sixth time to the office. It was no easy task to follow a President of such commanding claims to respect and honour as his immediate predecessor; but from that day to within a few hours of his being stricken with mortal illness Sir Andrew Clark literally devoted himself to the cares and duties of the high position to which he had been called. In him the College has been governed by one who jealously guarded its interests and recognised fully its claims as the leading medical institution of the kingdom. He maintained its high standard of ethics; in many cases he had to adjudicate upon serious questions of this nature that came under his notice, and his judgment was always based on sound and right principle; but of all the spheres of action in which the College shares none to him seemed more important than that of medical education, and his strenuous endeavours to secure a full recognition of the claims of the College with regard to the university question in London must be fresh in the memory of all. Nor was it only in meetings of censors, councils, comitia or committee that he was indefatigable in his attendance. He was equally punctilious in the observances of the social and academic functions of the presidency, never omitting to preside at lectures or receptions at the Fellows' Club or at the Harveian Dinner, which was re-established in the year of his first taking office, and was postponed this year at his own suggestion. His last public appearance was on St. Luke's Day, on the occasion of the Harveian Oration, the closing words of which must have found responsive echo in the hearts of those who sat around him. It cannot but be that one who took so real and vital an interest in their affairs, whose energy was unflagging, and whose counsel and service were always ready, will be long and sadly missed from the College with which he had been so closely identified during the past five years.

On Thursday, Oct. 19th, in the midst of his morning's work, while he was conversing with a friend, he found that he had some difficulty in rising from his chair on the conclusion of the interview. He described this, however, as only one of his "ordinary attacks." His butler assisted him to a sofa, and Dr. Russell Reynolds and Dr. Stephen Mackenzie were summoned. He was then found to have complete right hemiplegia and to be aphasic, and his breathing a few minutes from his seizure became of a typical Cheyne-Stokes character. Loss of consciousness can hardly be said to have existed at this time, for he appeared to recognise those summoned to his aid, but there was mental confusion, and this was intensified by his inability to express himself in words. In a short time he was assisted to a temporary bed arranged in his consulting-room, and by his own wish remained in that room until his death. His condition from the beginning gave rise to much apprehension. The Cheyne-Stokes respiration continued for upwards of three days without intermission and then disappeared. At first his speech was almost unintelligible. He slept a great deal, but when he awoke he gave manifestations of complete consciousness, recognising all about him, and at quite an early stage in the attack took an active part in controlling the management of his case. A certain amount of speech was recovered, but at all times it was difficult, and occasionally it was impossible, to understand his exact meaning. The paralysis at no time showed signs of amendment, but at the end of a fortnight's illness his general condition appeared to be favourable, and need for immediate anxiety seemed to be passing away. But a new series of symptoms arose. Distension of the intestine oppressed his breathing to an alarming extent, and raised a fear on Friday last that the end must be very near. He rallied a little, however, displaying an unexpected reserve of strength; but from that time it was apparent that only one termination could take place, and that it would take place speedily. He retained his consciousness almost to the end, and during the last two hours his breathing became somewhat relieved; but at five o'clock on the afternoon of Monday last he peacefully passed away.

The medical charge of Sir Andrew Clark fell to Dr. Russell Reynolds and Dr. Hughlings Jackson, in immediate consultation with Dr. Stephen Mackenzie, Dr. Barlow, and Dr. E. Liveing; but he was throughout assiduously watched by Sir Dyce Duckworth, Dr. Allchin, Dr. Hale White, Dr. Sansom, Dr. Drewitt, and Dr. Hadley, who took turns by the bedside. Dr. Mackenzie and Dr. Barlow shared the night watches between them. By the Queen's command Dr. Russell Reynolds kept Her Majesty informed by telegram of Sir Andrew Clark's daily condition, and highly sympathetic telegrams were received from Balmoral both during the course of the illness and at its sad close.

We cannot conclude this notice of Sir Andrew Clark's career better than by appending to it what may be said to have been the creed which guided him throughout. It is the closing sentence of an address delivered at the inauguration of the ninety-second session of the London Hospital Medical School. He was speaking of the spirit that should animate the student in his studies, but the words are applicable to all of us in our walk through life. "This spirit of sacrifice, sincerity, and faith," he said, "you should strive to cultivate in yourselves as one of the most precious results of the knowledge which you will acquire and of the discipline which you will practise within these walls. This is the spirit which will redeem you from failure and be your sure support in every time of trouble. Wealth may fail, friends may fail, you yourselves may fail; but this spirit, living and fructifying in you, will never fail. In the hurry, the turmoil, and the conflicts of life, in fears that might dismay and amid calamities that might overwhelm, it will abide with you, and it will fill your hearts with the peace which passeth understanding—the peace which the world cannot give."

The dinner of the Edinburgh University Club was held at the Holborn Restaurant, London, on Wednesday, Nov. 8th. As Sir Andrew Clark had been vice-president of this club, Dr. T. Lauder Brunton, F.R.S., the chairman, made the following affectionate allusion to the deceased baronet. He said: "I rise to propose the *alma mater* and the Edinburgh University Club in London. There is one of our fellow-*alumni* of the Edinburgh University, who is well known by

name at least to all of us, Robert Louis Stevenson, who has shown in his writings a remarkable appreciation of the dual life which we find in every man. In Dickens's novels we find this brought out very strongly. He tells of the condemned prisoner who is watching the hours that he has to live, completely absorbed in this, as one would have thought, because he dreaded to die; and yet, in spite of this deep, absorbing thought, he was watching a spider upon the ceiling and wondering how long it would take to get from one side to the other. We find the same duality mentioned by Shelley in one of his poems:—

'We look before and after,
And pine for what is not,
And our sincerest laughter
With some pain is fraught.'

"Now this always was, and is still more so on the present occasion, when in the midst of our festivities we mourn the death of one of our vice-presidents, Sir Andrew Clark, and some men may wonder why our festivities were not postponed. The reason of this is that it was considered that in keeping our festivities we are really doing what our dearly beloved vice-president would have wished us—viz., that no one should be put to the slightest inconvenience on his account, and therefore, as the day drew near on which the festivities could be postponed, it was thought better just to go on.

"In his death the club has sustained a most dreadful loss. Even now our vice-president is lying dead, and within a few days the words will be read over him: 'Blessed are the dead which die in the Lord; yea, saith the Spirit, they rest from their labours and their works do follow them.' Few men have works to follow them like Sir Andrew Clark, and very few rest from their labours in the same way that he does, because during his life—a long life—rest seemed to him a word almost unknown. He was ever at work in a way that very few men could be—twelve, fourteen, seventeen hours a day of restless, untiring activity. But it was not merely his untiring activity that gained him the high position he held. It was in him assisted with wonderful mental powers so versatile that he would tell the most amusing stories in the most amusing way. He was ready to fight whenever it was necessary; and how well he could fight was shown by the way in which he fought the battle of the army medical men and gained what they wanted. But fighting was not his only *forte*. He was able to influence men in a way that few others could, and the power which he exercised in restraining his patients and bringing them under the laws of moderation and temperance was enormously great; and it is very difficult indeed to estimate how much Sir Andrew Clark did for the cause of temperance in this country, because habits are very apt to begin with the higher grades of society and to filter lower down. His patients were, very many of them, in the higher ranks of society, and the temperance which he inculcated upon them became a habit which has filtered lower and lower until it will affect the whole of the society in this country. It was not only, however, in regard to the diet of his patients that his power and skill were shown. He was a master of therapeutics. I have been often amazed, knowing as I do what an enormous quantity of work he had to get through, to see how he kept himself abreast of all the newest discoveries, of all the new remedies; what could be done with them; and how their dangers could be avoided. But even more than this was his skill shown in the way in which he handled old remedies, those which had been known for ages and which were in the hands of every medical man. These in his hands seemed to be endowed with a new power which they did not formerly possess, and he worked with them as with a charm. To all this power and skill was added a kindness that nothing could surpass. Many of us have known him personally; many of us have met him. I myself once consulted him, thinking I was going to meet my death sentence. I went to him, and found him the kindest, truest friend imaginable, and what I found him then he remained to me ever afterwards. It was not only to medical men, however, that his kindness was shown. I have seen him by the dying bed of a patient dying of phthisis little by little and day by day. When others did not see what could be done, Sir Andrew Clark's skill and his resources enabled the man to die more easily than he could otherwise have done, all his little ailments were ameliorated by Sir Andrew Clark's untiring kindness, and we owe him also a debt of gratitude inasmuch as the life of that patient was prolonged and great good was done to humanity by the work which the patient, through Sir Andrew Clark's help, afterwards was able to do.

"There is another quality that struck me very much about Sir Andrew Clark, and that was his bravery. I look back with great pleasure to an evening I once spent with him in the house of the poet Longfellow. Longfellow asked us to dine, just a little party—we three, his daughter and his brother-in-law; and in spite of all the criticism against his poem, 'The Psalm of Life,' there is a great deal of truth in it which appeals to every one, and there is a verse which, although hackneyed, is still worthy of repetition:—

"We can make our lives sublime,
And departing leave behind us
Footprints on the sands of time.

Footprints that perhaps another,
Sailing o'er life's troubled main—
Some forlorn and shipwrecked brother—
Seeing may take heart again.'

"Now, Sir Andrew Clark was an instance of this. He has left behind him footprints on the sands of time which forlorn and shipwrecked men may take heart at seeing. Condemned as he was in early life to give up his career and go away to die, he manfully said, 'I will not; I will die in harness.' He remained in London, did his work, and, instead of dying, he lived a useful and happy life. The design that he formed in his youth has been fulfilled in his age. He has died in harness. He has shown us an example well worthy of following. He has shown us what a brave, strong, kindly, true-hearted man may be, and we, as members of the Edinburgh University and members of the University Club, are proud of him, and we may well follow him as we honour him. We are proud of our *alma mater*, and we trust that just as the Edinburgh University and the Club have had men like Sir Andrew Clark, so they will continue to have such men, and that the reputation both of our university and of our Club will be most worthily maintained."

At the conclusion of this speech it was announced that the musical part of the programme had been abandoned. In place of this Mr. William Nicol sang "A Highland Lament" and afterwards "The Land o' the Leal."

It has been arranged, with the consent of the Dean, that a commemorative service shall be held in Westminster Abbey in connexion with the funeral. The service will take place at noon to-day (Saturday), and afterwards the body will be conveyed to Essendon, near Hatfield, where it will be deposited in a vault which has been prepared.

The Royal College of Physicians will be largely represented by its Fellows and Members, and it is proposed that the officers of the College—viz, the Senior Censor, Dr. J. E. Pollock, Pro-President; Dr. Dickinson, Vicarius for Senior Censor; Sir George Buchanan, M.D.; Dr. Cheadle and Dr. Gee, Censors; Sir Dyce Duckworth, M.D., Treasurer; Dr. Edward Liveing, Registrar; and Mr. Fleming, Bedell (with the mace)—shall follow, in their College robes, the family of Sir Andrew Clark as mourners.

BRIGADE-SURGEON-LIEUTENANT-COLONEL S. COULL MACKENZIE, M.D., F.R.C.S., F.R.C.P. EDIN.

DR. COULL MACKENZIE, of the Bengal Medical Service, died at Darjeeling, in India, on the 1st of last month, after a prolonged illness, to the abiding sorrow of his family and friends, and the general regret of those who knew him personally in private and public life. He possessed in an exceptional degree the art of making friends and impressing favourably the circle in which he moved. He landed in Calcutta in 1866, and officiated soon afterwards for a short time as house surgeon of the Medical College Hospital and subsequently in the General Hospital, both excellent schools for the study of tropical diseases, without some practical acquaintance with which the principles taught in our home schools are not alone safe guides in the management of those diseases. The latter temporary was soon converted into a permanent office after a brief term of duty in the civil station of Rajshahye. When his assiduity and professional worth became known he was nominated to the governing and professional charge of the Presidency Gaol of Calcutta, one of the most important prisons in the Lower Provinces. This position led, after some seven years of approved service, to his nomination to the position of health officer of Calcutta. Subsequently, when some important changes were required in the management of the Campbell Medical School and Hospital, he was appointed superintendent of those institutions, to which office were attached the professorship of medical jurisprudence and the police surgeoncy of Calcutta, offices which he held to the time of his death. The only recorded result of his valuable labours was a *brochure* containing his medico-legal experience in Calcutta, published in Edinburgh

in 1891. It embodied important information upon some points in medico-legal practice, a knowledge of which is necessary for the proper administration of the law in criminal cases in India. Dr. Mackenzie was an indefatigable, silent worker, an honest exponent of opinions based upon personal knowledge and experience, and a genial companion in private life. During his recent furlough to Europe he devoted much of his time to adding to his professional knowledge. His death at the comparatively early age of fifty-one years is a distinct loss to the medical departments of Bengal.

ARTHUR HENSMAN, F.R.C.S. ENG.,

LECTURER ON ANATOMY IN THE MIDDLESEX HOSPITAL MEDICAL SCHOOL.

MR. ARTHUR HENSMAN was a younger son of the late Mr. John Hensman, a well-known solicitor of Northampton. He was born in 1842, and received his early medical training with Dr. Coales of Northampton and at the Northampton General Infirmary, subsequently entering as a student at University College, London. On becoming qualified in 1866 he entered into general practice at Chatteris, near Cambridge; but after a few years he left this sphere of work and came to London. In 1871 he received the appointment of Demonstrator of Anatomy in the Middlesex Hospital Medical School, where Dr. Robert Liveing was then lecturing on the subject. This appointment he held for ten years, together with the lectureship on Botany (1872 to 1881) and that on Comparative Anatomy (1873 to 1883). In 1880 he was appointed surgeon to the throat and ear department of the hospital, and in 1881 he succeeded Mr. Henry Morris in the lectureship of Anatomy. His long connexion with this hospital and school brought him many friends and a long series of pupils, who can testify to the clearness and thoroughness of his teaching, combined with a rare gentleness and patience. Yet outside the limits of the Middlesex Hospital Arthur Hensman was not widely known. He neither courted fame nor strove after publicity. He was content to pursue the even tenour of his life, and his unassuming modesty and self-abnegation made him happy in the path he had chosen. A lover of fine art and of the natural sciences, he took the keenest pleasure in spending a week-end in the country, sketching or angling or studying the fauna and flora of the district. It was in harmony with this "gentle life," which suited him so well, that in his private relations he was kind and generous to a fault, not sparing himself whenever occasion offered to do some kindly service, professional or otherwise, for simple love of his fellow-man. It was, perhaps, equally characteristic of this nature that, although he must have felt, as his friends could not fail to observe, that his formerly robust health had been broken by an attack of influenza two years ago, he did not seek advice from anyone until within a fortnight of his death. It was then found that he was suffering from advanced Bright's disease, associated with marked general debility, and his brief illness was but the natural termination of a steady decline of vital power. Nevertheless, he had entered on the session's work with heroic determination, and at the opening of the session he presided over the largest gathering of the old pupils of the school that has ever assembled on such an occasion. Mr. Hensman, one of whose brothers is a distinguished member of the Australian bar, was married in 1868 to Miss Elizabeth Fisher, who survives to mourn her loss. His published works are few. They comprise an original and useful publication, "Anatomical Outlines," issued some ten years ago, designed to encourage students to make drawings of their own dissections. He also contributed to the article on Diseases of the Larynx in the last edition of "Holmes's System of Surgery," and more recently he wrote the sections in "Morris's Treatise of Anatomy" upon thd Thorax, the Upper Part of the Digestive Tract, and the Larynx. This work shows him to have been an expert and careful anatomist as well as a clear and lucid writer. In him the Middlesex Hospital School has been deprived of an experienced teacher and a loyal friend.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an ordinary meeting of the Council of the College held on the 9th inst., Mr. J. W. Hulke, F.R.S., President, in the chair,

The minutes of the Quarterly Council of Oct. 12th were read and confirmed.

The President reported the death on the 6th inst. of Sir Andrew Clark, Bart., M.D., F.R.S., President of the Roya College of Physicians of London.

It was unanimously resolved: "That the Council hereby express their deep regret at the death of Sir Andrew Clark, Bart., M.D., F.R.S., and have sincere sympathy with the Royal College of Physicians of London in the loss of their President. The Council do also record their appreciation of the many and valuable services rendered by him in the best interests of the two Royal Colleges now so closely associated."

It was also unanimously resolved: "That the Council hereby express to Lady Clark and the family their deep regret at the irreparable loss they have sustained by the death of Sir Andrew Clark, Bart., and their sympathy with his family in their bereavement."

It was likewise resolved that the President and vice-presidents be requested to attend at the funeral as the representatives of the College on that occasion.

The President reported the proceedings at the meeting of Fellows and Members on the 2nd inst. and stated that, in addition to seventeen members of the Council, there were present twenty Fellows and sixteen Members.

The Secretary was instructed to inform the movers and seconders of the two resolutions that these had been laid before the Council.

A letter was read from Dr. E. Liveing in reference to matters common to the two Colleges.

The President was nominated as the representative of the College at the next Public Health Congress.

The Bradshaw Lecture will be delivered by Sir W. MacCormac on Thursday, Dec. 7th, at 4 P.M. The subject of the lecture will be "The Surgical Work of Sir Astley Cooper."

A letter of the 20th ult. was read from the Hunterian Society thanking the Council for their kind loan of portraits and Hunterian relics at the Society's Conversazione on Oct. 18th.

The Council sanctioned the acceptance by Professor Charles Stewart of the post of Fullerian Professor at the Royal Institution recently conferred on him.

Medical News.

ST. BARTHOLOMEW'S HOSPITAL: TESTIMONIAL TO DR. ANDREW.—Old students of the hospital are reminded that the subscription list of the Andrew Testimonial Fund is still open and will be closed on Dec. 1st. It is requested that any gentlemen wishing to subscribe and not having already forwarded their subscriptions will do so before that date.

IMPROVEMENTS AT ADDENBROOKE'S HOSPITAL, CAMBRIDGE.—When the hospital was undergoing alterations during the early part of the year it was found that the state of the floors left much to be desired and that unless they were relaid with hard wood the sanitary condition of the wards would still be defective. A special effort was made to meet the expense, and a sum of over £300 was contributed to enable the governors to carry out the work. The governors contributed an equal sum from the general funds, and this sufficed to put into excellent condition two surgical wards and one medical ward. The improvement has been most marked, and it is now possible to keep these wards sweet and clean without the incessant damp and effluvia which accompany the scrubbing and scouring of rough boards. The refloored wards are, however, all on the men's side of the hospital, while the two wards, medical and surgical, on the women's side are still subject to the old disadvantages. In the hope that the liberality of the friends of the hospital is not yet exhausted, and in view of the great importance of putting the whole of the wards into the sound and healthful condition which is desirable in the interest of the suffering patients, the governors have opened an account at Messrs Mortlock's for the reflooring of the Hatton and Victoria Wards. If by next summer the public contribute half the estimated expense (some £200) to this account the governors are prepared to carry out this needed improvement during the ensuing long vacation. Any friend who is interested in the welfare of Addenbrooke's Hospital has only to visit the men's wards in their new condition and compare them with the women's wards in orderto be convinced of the desirability of completing the work, and rendering the hospital as a whole above reproach from a sanitary point of view.

SUPERANNUATION ALLOWANCE.—Mr. G. C. Edwards, lately medical officer for the St. Margaret's district of the Ipswich union, has been granted a superannuation allowance of £60 per annum.

DEATH OF MR. J. G. BARFORD OF WOKINGHAM.—It is with great regret that we learn at the time of going to press of the death of Mr. James Gale Barford of Wokingham, Berks. Mr. Barford had for some time back been ailing from the effects of a slight apoplectic seizure, which he suffered while driving in his carriage during the hot summer months. He had, however, under the care of the late Sir Andrew Clark, almost completely recovered, and had regained the power of expressing himself fluently and intelligently, and in fact had been congratulated on his speedy recovery by Sir Andrew Clark, who told him that he only knew of one other case like his, and that was that of a distinguished dignitary of the Church, who after recovery from a similar attack lived the most useful and most intellectual part of his life. Mr. Barford was a practitioner of a rare school: a keen, shrewd observer, a skilful thinker, and an excellent therapeutist. His skill as a practitioner was great, and his geniality as a friend none could gainsay. He studied medicine in St. Bartholomew's Hospital and took his first diploma in the year 1857. He became Licentiate of the Royal College of Physicians of London in 1863. His particular bias was in physiological chemistry, and he acted as medical officer and professor of chemistry at Wellington College for no less a period than twenty-four years. He always took the deepest interest in the affairs of this school and its hygienic condition. His pen was rarely idle, yet he never wrote without a purpose. Among his published works may be mentioned those entitled "Deodorising Properties of Carbon" and "Articles on Complexities in Specific Fevers." Educational subjects constantly engaged his attention, and he wrote an article entitled "Over-Pressure in Schools," which was published in THE LANCET of 1884. Mr. Barford, in the district of Wokingham, in which he had practised for so many years, was as much respected as he was widely known, and his professional assistance was sought by patients of the highest distinction.

SCHOOLS OF SURGERY: ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following prizes were awarded for the past winter and summer sessions: *Winter Session, 1892–93:* Descriptive Anatomy—Junior: W. J. Sweeney, first prize, cheque and medal; H. E. Eardley, second prize, cheque and certificate. Senior: C. B. Martin, first prize, cheque and medal; M. J. Carroll, second prize, cheque and certificate. Practical Anatomy—First year: W. J. Sweeney, first prize, cheque and medal; H. E. Eardley, second prize and certificate. Second year: C. B. Martin, first prize, cheque and medal; R. M. Hamilton, second prize, cheque and certificate. Third year: A. Leventon, first prize, cheque and medal; E. J. Moore, second prize, cheque and certificate. Practice of Medicine—E. A. Meeke, first prize, cheque and medal; A. Leventon, second prize, cheque and certificate. Theoretical Surgery—C. J. Fallon, first prize, cheque and medal; P. F. Morrissey, second prize, cheque and certificate. Midwifery—D. Molyneux, first prize, cheque and medal; J. J. O'Donnell, second prize, cheque and certificate. Physiology—E. J. Moore, first prize, cheque and medal; G. E. Robinson, second prize, cheque and certificate. Physics.—F. J. Palmer, first prize, cheque and medal; A. Hatchell, second prize, cheque and certificate. Biology.—F. J. Palmer, first prize, cheque and medal; W. M. Power, second prize, cheque and certificate. Chemistry—E. M. O'Farrell, first prize, cheque and medal; B. R. Phillipson, second prize, cheque and certificate. *Summer Session, 1893:* The Barker Anatomical Prizes—Mr. A. Leventon, 1892, £21; Mr. E. J. Moore, 1893, £21. Mayne Scholarship—Mr. W. Taylor, £15. Operative Surgery—Mr. W. Taylor, first prize, gold medal; Mr. H. R. Sweeney, second prize, silver medal. Practical Chemistry.—Mr. T. A. Rorke, first prize, cheque and medal; Mr. J. J. O'Sullivan, second prize, cheque and certificate. Practical Histology.—Mr. G. E. Robinson, first prize, cheque and medal; Mr. H. P. S. Montgomery, second prize, cheque and certificate. Materia Medica—Mr. M. Moore, first prize, cheque and medal; Mr. C. E. Hodgson, second prize, cheque and certificate. Practical Pharmacy.—Miss S. L. Glynn, first prize, cheque and medal; Mr. J. Campbell, second prize, cheque and certificate. Forensic Medicine.—Miss J. B. Ferguson and Mr. A. Leventon, equal, first prizes, cheques and medals; Miss E. L. Micheson and Miss A. M. Thornett, equal, second prizes, cheques and certificates.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Report of the Local Government Board.

THE twenty-second annual report of the Local Government Board has just been presented to the Houses of Parliament. It is an extensive Blue-book, and both in its substance and in its appendices will receive from us later the attention that it deserves. We are glad to see in Appendix L. the clear and elaborate figures illustrative of the working of the Infectious Disease Notification Act, a footnote to which points out the anomalies that exist in the diseases specifically required to be notified. For instance, some towns exempt croup, some erysipelas, some continued fever, some relapsing fever, some puerperal fever, and one or two all of them. The figures in the column devoted to death from membranous croup do not include all the deaths from that cause, for the Registrar-General's returns do not separate these deaths from those due to spasmodic croup, which are not made the subject of registration.

Identification of Habitual Criminals.

It is announced that the Home Secretary has appointed a committee to consider the means at present available in this country for the identification of habitual criminals, and to report to him whether the present method can be improved. At present there are several methods of identification in different parts of the world, but most of them are open to objection if used singly. Bertillon's system has proved itself to be in many ways far superior to the old method of identification by photography, the number of recognitions per month having doubled by the anthropometrical system, which is far less costly than photography; but, on the other hand, there is some possibility, though a very slight one, of inaccurate measurements being taken. Body marks, such as moles and scars, afford an excellent means of identifying criminals; at the same time they possess the disadvantage of not lending themselves to easy classification. Mr. Francis Galton's finger-print method has been much advocated in this country and has been used in Bengal. The committee will consist of Mr. Troup of the Home Office, Major Arthur Griffiths, one of Her Majesty's Inspectors of Prisons, and Mr. M. L. MacNaughten of the Metropolitan Police, with Mr. H. B. Simpson of the Home Office to act as secretary. With the three systems already in use the committee should have no difficulty in coming to some practical conclusion which will make the work of identification less laborious to the officials, while at the same time it is more certain in its results.

Isolation Hospitals Bill.

A strong effort will be made by the friends of this Bill to get it passed into law before the close of the present session. Very little remains to be done with it, for it has passed all its stages in the House of Lords and has reached the committee stage in the House of Commons. Symptoms of opposition are not, however, wanting.

HOUSE OF COMMONS.

MONDAY, NOV. 6TH.

The Thames Conservancy Board.

Mr. H. Lawson asked the President of the Board of Trade whether he would consent to the appointment of a Select Committee with the view of increasing the powers of the Thames Conservancy Board in order to enable it to prevent the pollution of the river above the intakes of the water companies.—Mr. Mundella said that the question of the constitution and powers of the Board referred to was at present receiving careful consideration, so that the Government may be prepared to submit a measure for the approval of the House.

Anthrax.

Sir Walter Foster, replying to a question put by Mr. Macdona regarding an inquest on the body of a man who died from anthrax, said that his attention had been drawn to the report mentioned, but that, though there was no doubt about the fact that the deceased had died from anthrax, yet the evidence was not conclusive that the grain bags which the man was engaged in unloading consisted of skins; indeed, he was quite unable to say how the disease originated in the case referred to. In reply to a further question Sir W. Foster stated that there had been lately some increase of the disease, which is usually imported by skins.

Local Government (England and Wales) Bill.

A long and interesting discussion took place on the second reading of this Bill. The points raised, however on this and the following day bore only indirectly on the health interests, save that Sir Walter Foster expressed his opinion that the transfer of the duty of making sanitary regulations from the guardians to the new district councils would be both salutary and useful.

TUESDAY, NOV. 7TH.

Indian Cantonments.

Mr. G. Russell, replying to a question put by Mr. Stansfeld on this subject, quoted a telegram forwarded to the Indian Government and their reply. The telegram referred to the report of the Committee on Cantonments sent by mail on Sept. 15th, by which legislation was recommended as the only effective method of preventing practices inconsistent with the resolution of the House of Commons. In the reply of the Indian Government it was stated that there had been forwarded drafts of three Bills and of regulations to show how effect might be given to the intentions of the committee. Officers concerned had been called to account and the result would be forwarded to the home authorities.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ANDERSON, W. M., M.B., M.S. Aberd., has been appointed House Physician to the Hospital for Consumption and Diseases of the Chest, Brompton, S.W.

ASHBY, A., M.B. Lond., F.R.C.S., M.R.C.S., has been reappointed Medical Officer of Health for Reading.

BINNIE, R. M. G., M.D. Glasg., L.F.P.S., has been appointed Medical Officer for the Western Sanitary District of the Durham Union.

BLUNDEN, J. O., L.R.C.S. Irel., has been appointed Medical Officer for the Western Sanitary District and of the Workhouse of the Wirral Union.

BRYETT, W. R. B.A., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant House Physician to the King's College Hospital.

DAISH, W. C., M.D. Melb., Ch.B., has been appointed Health Officer for the South Melbourne City, Australia, vice Haig, deceased.

EDGE F., M.D. Lond., L.R.C.P., F.R.C.S., has been appointed Surgeon to the Wolverhampton and District Hospital for Women, Chapel Ash.

GOWING, B. C., M.R.C.S., has been reappointed Medical Officer of Health for the Bucks and Sanitary District of the Faringdon Union.

GROSS, C. F., L.S.A., has been appointed Assistant House Accoucheur to the King's College Hospital.

HOFFMEISTER, W., M.D. Heidelb., L.R.C.P. Lond., M.R.C.S., L.M., has been reappointed Medical Officer of Health for the Port and Urban Sanitary Districts, West and East Cowes.

HUNTER, WILLIAM, M.D. Edin., M.R.C.P. Lond., has been appointed Assistant Physician to the West London Hospital.

JOBBINS, W., M.B. Lond., L.R.C.P., M.R.C.S., has been appointed Anæsthetist to the Wolverhampton and District Hospital for Women, Chapel Ash.

KENDALL, N. F., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Senior Resident Medical Officer to the North-West London Hospital, Kentish-town road, N.W.

LAKE, WELLINGTON, D.P.H. Camb., M.R.C.S. Eng., has been appointed Medical Officer of Health to the new Woking Local Board.

LEEDHAM-GREEN, C. A., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Queen's Hospital, Birmingham.

LONGTON, G. H., M.R.C.S., L.R.C.P., has been appointed House Accoucheur to the King's College Hospital.

LYCETT, J. A., M.D. St. And., L.R.C.P. Lond., M.R.C.P. Edin., L.R.C.S. Eng., has been appointed Surgeon to the Wolverhampton and District Hospital for Women, Chapel Ash.

NICKLIN, M., M.B. Lond., L.R.C.P., M.R.C.S., has been appointed Surgeon to the Wolverhampton and District Hospital for Women, Chapel Ash.

PERN, ALFRED, L.R.C.P. Lond., F.R.C.S., D.P.H. Camb., has been reappointed Medical Officer of Health for the South Stoneham Rural Sanitary District.

PERRY, C. M., M.R.C.S., L.R.C.P., has been appointed House Surgeon to the King's College Hospital.

PULLIN, T. H. S., M.D. St. And., F.R.C.S. Edin., M.R.C.S., has been reappointed Medical Officer of Health for Sidmouth.

RENDLE, C. E. RUSSEL, B.A. Oxon., M.R.C.S., L.R.C.P., has been appointed Assistant Surgeon to the South Devon and East Cornwall Hospital, Plymouth, vice R. H. Hughes, M.D., Cantab., resigned.

SARJEANT, J. F., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Junior Resident Medical Officer to the North-West London Hospital, Kentish-town-road, N.W.

SAVAGE, T., M.D. St. And., L.R.C.P. Lond., M.R.C.S., has been appointed Consulting Surgeon to the Wolverhampton and District Hospital for Women, Chapel Ash.

TAYLOR, J. W., L.R.C.P. Lond., F.R.C.S., has been appointed Consulting Surgeon to the Wolverhampton and District Hospital for Women, Chapel Ash.

TEW, J. S., M.D. Durh., M.R.C.S., D.P.H. Camb., has been reappointed Medical Officer of Health for the Basford Rural Sanitary District.

THOMPSON, ABRAM, M.D. St. And., M.R.C.S., has been reappointed Medical Officer of Health for the Ulverston Urban and Rural Sanitary Districts.

TURNER, WILLIAM, M.R.C.S., L.R.C.P., L.S.A., has been appointed House Physician to the King's College Hospital.

TWEEDY, C., M.R.C.S., has been appointed Medical Officer of Health for Northallerton.

WACE, C., M.R.C.S., L.R.C.P., has been appointed House Surgeon to the King's College Hospital.

WARNER, T., M.R.C.S., L.R.C.P., has been appointed House Surgeon to the King's College Hospital.

WATERS, ERNEST E., M.B. and C.M. Edin., has been appointed House Surgeon to the Sheffield Union Infirmary, Sheffield.

WELLINGTON, R. H., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health for the Wisbech Port and Sutton Bridge Urban Sanitary District.

WHITEHEAD, H. E., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Third Sanitary District of the Islington Union.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

CHELTENHAM GENERAL HOSPITAL.—Resident Surgeon, unmarried, or, if married, without family. Salary £180 per annum, with partly furnished house, coal, and gas.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark-street, S.E.—Senior Resident Medical Officer. Salary £70, with board, washing, and residence.

HOSPITAL OF ST. PETER, Port Guernsey.—Surgeon, for one year. Salary £50 per year currency (vaccination included), in addition to which a certain vaccination allowance will be made.

HOSPITAL FOR WOMEN, Soho-square, W.—Assistant Physician.

INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House Surgeon. Salary £50 per annum, with board and residence.

LIVERPOOL DISPENSARIES.—Assistant Surgeon (unmarried). Salary £80 per annum, with apartments, board, and attendance. Applications to the Secretary, Leith Offices, 34, Moorfields, Liverpool.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT.—Assistant Medical Officer. Honorarium £24 per annum.

MIDDLESEX HOSPITAL, W.—Aural Surgeon.

NATIONAL SANATORIUM FOR CONSUMPTION AND DISEASES OF THE CHEST, Bournemouth.—Resident Medical Officer and Secretary. Salary £120 per annum, with board and lodging.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary £120 per annum.

PARISH OF ST. MARY, Islington.—Resident Assistant Medical Officer and Dispenser of Medicines at the Workhouse and Infirmary, St. John's-road, Upper Holloway. Salary £120 per annum, with rations, apartments, and washing. (Applications to the Clerk, Guardian's Offices, St. John's-road, Upper Holloway, N.)

ROYAL FREE HOSPITAL, Gray's Inn-road, W.C.—Two Resident Medical Officers (House Physicians) for six months. Board, residence, and washing provided in the hospital.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—House Surgeon for two years. Salary £100 per annum, with board, lodging, and washing.

ST. LUKE'S HOSPITAL, London, E.C.—Clinical Assistant for six months. Board and residence provided.

SUNDERLAND INFIRMARY.—House Physician. Salary £80, rising £10 annually to £100, with board and residence.

SURREY DISPENSARY, Great Dover-street, S.E.—House Surgeon, unmarried. Salary £120 per annum, with furnished apartments, coal, gas, and attendance.

TAUNTON AND SOMERSET HOSPITAL, Taunton.—Qualified Dispenser. Salary £100.

THE HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury, W.C.—Assistant House Surgeon, non-resident, for six months. Salary £20.

THE HOSPITAL FOR SICK CHILDREN, Great Ormond street, Bloomsbury, W.C.—Assistant Physician.

THE LONDON THROAT HOSPITAL (FOR DISEASES OF THE THROAT, NOSE, AND EAR), 204, Great Portland-street, W.—Junior Assistant Surgeon.

UNIVERSITY COLLEGE, London.—Surgical Registrar.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton. Resident Assistant for six months. Board, lodging, and washing provided.

Births, Marriages and Deaths.

BIRTHS.

BURNET.—On Nov. 6th, at 6, Upper Wimpole-street, the wife of R. W. Burnet, M.D., of a daughter.

DAVENPORT.—On Sept. 20th, at St. Kilda, Melbourne, Victoria, the wife of Dr. Arthur F. Davenport, of a son.

MOODIE.—On Nov. 6th, at Park-avenue House, Stirling, the wife of Robert Woodie, M.D., B.Sc., of a son.

TERRY.—On Nov. 6th, at 14, Green Park, Bath, the wife of Henry G. Terry, M.R.C.S., F.R.C.S.E., of a daughter.

MARRIAGES.

EMLYN—CURGENVEN.—On Nov. 1st, at Christ Church, Lancaster-gate, Charles Willmore Emlyn, M.R.C.S., L.R.C.P., to Ethel Sarah, daughter of J. Brendon Curgenven, M.R.C.S., of Teddington Hall, Middlesex.

GILPIN—STEELE.—On Nov. 2nd, at St. John's, Blackheath, Bernard Bevill Gilpin, Surg. on R.N., only son of Henry Gilpin, Paymaster-in-Chief, R.N., to Laura Mary, second daughter of William Johnstone Steele, of Annandale Lodge, Blackheath.

MONTAGUE—MAPSON.—On Nov. 6th, at the Priory, Worksop, by the Rev. H. T. Sladden, M.A., vicar, A. J. Helm Montague, M.D., L.R.C.P., M.R.C.S., of Worksop, only son of the late Rev. John Montague, M.A., F.G.S., formerly vicar of Wimbish, Essex, to Eunice M. Mapson, eldest daughter of John S. Mapson, of Great Grimsby. No cards.

DEATHS.

CRAVEN.—On Nov. 2nd, at Thurso, John Craven, L.R.C.P., L.R.C.S. Edin., J.P.

DRENNAN.—On Nov. 1st, at 39, Prospect-terrace, Belfast, John S. Drennan, M.D., in his 85th year.

FOSS.—On Nov. 2nd, at 2, High-street, Stockton-on-Tees, Robert William Foss, M.D., M.B. & C.M., L.S.A. Lond., Senior Honorary Medical Officer, Stockton Hospital, aged 65.

GRAHAM.—On Oct. 30th, John Graham, Esq., M.R.C.S.E., of Kennington, aged 78.

HARRISSON.—On Nov. 6th, at Brighton, Henry Harrisson, surgeon, late of Great Portland-street, London, aged 71.

HENSMAN.—On Nov. 1st, at 31, Harley street, Cavendish square, Arthur Hensman, F.R.C.S., of Middlesex Hospital.

MAGRATH.—On Nov. 6th, at Wimbledon, Joseph Adolphus Magrath, M.D., in his 70th year.

MARRIOTT.—On Nov. 4th, at Guy's Hospital, of diphtheria, Edgar Buchanan Marriott, B.A., of Clare College, Cambridge, younger son of R. B. Marriott, surgeon, Swaffham, Norfolk, aged 24 years.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, November 9th, 1893.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Nov. 3	29·92	S.W.	49	48	68	60	46	·08	Overcast
,, 4	29·85	W.	55	54	57	53	48	..	Cloudy
,, 5	30·05	N.E.	41	39	48	45	39	·04	Hazy
,, 6	30·02	N.W.	37	36	66	48	35	—	Cloudy
,, 7	30·22	N.E.	37	36	72	47	35	—	Overcast
,, 8	30·27	N.E.	40	38	55	46	37	..	Overcast
,, 9	30·26	E.	42	40	59	44	39	—	Cloudy

Medical Diary for the ensuing Week.

Monday, November 13.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2.30 P.M.; Friday, 2 P.M.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M.; and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2 P.M.; Thursday, 2 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.; and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL. Ear and Throat Department, 9 A.M.; Thursday, 9 A.M. Eye Department, 2 P.M.

ROYAL EYE HOSPITAL, SOUTHWARK.—Hour of attendance, 2 P.M., and other days at the same hour. Operations daily.

LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital, Moorfields: 1 P.M., Mr. R. Marcus Gunn: Cataract.

THROAT HOSPITAL (Golden-sq.).—5 P.M. Lecture by Dr. N. Wolfenden.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-sq., W.C.)—5.30 P.M. Dr. Morgan Dockrell: Acne, Comedones and Milium.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Edmund Owen: A case of Axial Rotation of the Testes with Strangulation.—Mr. Bland Sutton: Nephrectomy for Hydronephrosis.

Tuesday, November 14.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M. Skin Department, 1.45; Saturday, 9.15.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Dr. Payne: Acne.—Bethlem Hospital: 2 P.M., Dr. Hyslop: Insanity with Syphilis; Insanity with Organic Brain Disease.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Mr. Chas. R. B. Keetley: Operations without Anæsthesia.—Dr. Dawson Williams: A case of False Disseminated Sclerosis due to Measles, with Remarks on the Occurrence of certain Widespread Nervous Disorders after this and other Infectious Diseases.

Wednesday, November 15.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday and Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M. Dental Department, 9.30 A.M. Eye Department, 2 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Habershon: Varieties of Cardiac Disease.—Royal London Ophthalmic Hospital, Moorfields: 8 P.M., Mr. A. Stanford Morton: Ocular Paralyses.

THROAT HOSPITAL (Golden-sq.).—5 P.M. Mr. F. G. Harvey: Stricture of the Œsophagus.

ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Mr. W. West: New British Freshwater Algæ.—Mr. T. F. Smith: On the Value of Aperture in Microscopical Research (with Lantern).—Mr. G. Sandeman: A Parasitic Disease in Flounders.

Thursday, November 16.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M. Ear and Throat Department, 9 A.M. Eye Department, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Gt. Ormond-st.: 3.30 P.M., Mr. Leopold Hudson: Tubercular Disease of the Cervical Lymphatic Glands in Children.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Tooth: Cranial Nerve Diseases.—London Throat Hospital (Gt. Portland-st.): 8 P.M., Dr. E. Woakes: Tinnitus and Vertigo.—Central London Sick Asylum, Cleveland-street, W.: 5.30 P.M., Mr. Reginald Harrison: Cases in the Wards.

Friday, November 17.

UNIVERSITY COLLEGE HOSPITAL.—Eye Department, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Habershon: Varieties of Cardiac Disease.

Saturday, November 18.

UNIVERSITY COLLEGE HOSPITAL.—Skin Department, 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Corner: Insanity with Cardiac Disease, Phthisis, Gout, Diabetes, &c.

Notes, Short Comments & Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

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IN order to facilitate the work of reference to the volumes of THE LANCET, we have arranged to publish duplicate copies of the Index to each half-yearly volume in a form in which they may be subsequently filed or bound together. Those of our subscribers who may wish to be supplied with loose copies can obtain the same (without extra charge) on making application to the Publisher of THE LANCET.

ADULTERATION IN INDIA.

The adulteration of food and drugs, a form of iniquity to check which THE LANCET has always devoted its energies, seems to be rearing its venomous head in our Eastern dependency. It is stated that the sophistication of ghee has attained such huge proportions in Bombay that a memorial bearing upwards of 50,000 signatures, some of them those of distinguished individuals, native and European, has been presented to Lord Harris, who will doubtless find it necessary to take some speedy action in the matter.

A. B. C.—A's action is limited by his contract. He can only act in accordance with it. Unless consulting practice is specifically admitted or allowed by B. it is to be declined.

"SCARLET FEVER AND RÖTHELN."

To the Editors of THE LANCET.

SIRS,—I would venture to suggest that the points of difference between scarlet fever and rötheln placed side by side by Dr. F. P. Atkinson in THE LANCET of Oct. 21st are of no practical value, and are possibly misleading in the first, second, third, and fifth points. How often one has met children desquamating during an epidemic of scarlet fever, and upon interviewing the parents one has

received a reply almost in Dr. Atkinson's words: "Why, doctor, the child was scarcely ill at all, and if it had not been for a little rash I noticed I should not have remembered that he complained." This point of "scarcely ill at all" is laid down as suggesting that the attack is not scarlet fever, but these are really just the cases that spread the disease broadcast. The initial fever mentioned in the second point of difference is also in my opinion not to be relied on; for a child may develop a most virulent attack from the infection derived from a case where there was practically no fever discovered at all. The period of incubation is of no help if there is utter inability to trace the origin of the attack, and one would be slow to say that a case which had been exposed to the infection of rötheln for eighteen days previously was not a case of scarlet fever if all the symptoms were those of scarlet fever, considering that the incubation period of that disease is known to be as short as twenty-four hours in some cases. The strawberry-looking tongue is not very diagnostic of anything in particular in children. I have often seen a typical strawberry tongue in cases where there was not the slightest suspicion of scarlet or any other fever. When I was an assistant, some years ago, one of the leading tradesmen of the town came to ask my principal to see a child of his. As my principal was out, I went. I found that the child had been sick and, in the words of the mother, "seeming a little out of sorts." When undressing the child the mother thought she saw a rash and so sent for medical advice. I found that there was a very slight rash and also slight general redness of the tonsils. The temperature was 99·6° F. I diagnosed a mild attack of scarlet fever and took all the necessary precautions. Fearing that it would very much interfere with his business, the father asked me to send the principal himself in the morning, who on going found that the rash had disappeared, that the throat looked quite normal, and that the temperature was also normal. My diagnosis was set aside and I was reprimanded for my hasty conclusions. I must honestly confess that my feelings were somewhat elated a few days afterwards when the father came and said that two more of his children were suffering from bad throats and seemed very ill. My principal on visiting them found them suffering from well-marked scarlet fever. Five more children were laid up one after the other. And now comes the most extraordinary part of it all. As the other children were convalescing the child who was first taken ill was again seized with a well-marked attack of scarlet fever. I quote the case because it seems to be very similar to the one published by Mr. Edgar R. Ivatts in THE LANCET of Oct. 28th. There were no cases of rötheln or scarlet fever in the town, and those I have mentioned were the first of an epidemic. Is it not possible for a child to have two attacks immediately following one another, or was I mistaken in diagnosing scarlet fever in the first instance?

I am, Sirs, yours faithfully,

Aberdovey, Nov. 1st, 1893. W. HAWKINS CUTHBERT, L.R.C.P.E.

MEDICINE IN CHINA.

SOME of the medical missionary work carried on in China is pourtrayed in the latest report of the Edinburgh Missionary Society, from which we reproduce an excerpt from the communication forwarded to the Secretary by Dr. James A. Greig, stationed at Kirin. This gentleman relates how the Governor's palace, the arsenal, and the prefect's yamen afforded their quota of sick:—

> "An under-secretary of the Governor-General was first to seek our aid. His very painful surgical disease yielded to treatment, and soon it was noised abroad, and we were called in to rescue a mandarin's wife, who had taken a draught of laudanum during a quarrel. She also was restored. A foreman in the Arsenal was suddenly attacked with jaundice. Being a Southern Chinaman, he had come in contact with foreigners before, and so, without delay, he sent a cart for me. It was dinner-hour when we arrived, and his room was crowded to suffocation with his fellow-workmen, eager to see and hear the strange man of the west."

These and other cases seem to have yielded to the treatment administered. Other examples of the success which has attended the efforts of the medical missionaries are also recorded, proving that the "Heathen Chinee" is not insensible to endeavours made in his behalf to introduce more judicious and humane methods than those in vogue in the Celestial realm. In this connexion it may be of interest to mention that in September last a new wing of the Alice Memorial Hospital was opened at Hong Kong. The cost of the addition was defrayed by a wealthy merchant of that city.

CATALOGUE OF PHYSICAL APPARATUS.

WE have received a very complete price-list of the physical apparatus manufactured and sold by Messrs. Philip Harris and Co., Limited, of 144 and 146, Edmund-street, Birmingham. Besides the apparatus necessary for the practical study of sound, light, heat, electricity, pneumatics, and mechanics, this firm also supply, we find, osteological specimens, physiological diagrams, anatomical models and botanical specimens, models of crystals, and so on. The book is fully illustrated, and some idea of its scope may be gained from the fact that it extends to over 370 pages. So far as we have read the descriptions, the apparatus is fully up to the standard of modern requirements.

THE OLFACTORY SENSE.

Two American physiologists—Professors Nicholls and Browne—the *Table* states, have recently been making experiments with the object of testing the keenness of the sense of smell in the two sexes. A number of strong-smelling substances, such as essence of cloves, extract of garlic, prussic acid, and essence of lemon, were used. These were diluted with water in varying proportion, and thirty-eight women and forty-four men, picked from various ranks in life, were chosen for the test. Without exception the women ceased to detect prussic acid when the solution was weaker than 1 part acid in 20,000 of water, while the majority of the men could detect the acid in a solution of 1 in 100,000. Three of the men recognised the acid in a solution composed of 2,000,000 parts of water to 1 of acid. Essence of lemon could be recognised by the women only as far as a solution of 1 in 100,000; the men, however, detected it in a 1 in 250,000 solution.

X. Y.—The position is not free from difficulty, but the more thoroughly neighbourliness is carried out by neighbours in holiday times the better will it be for all parties in the long run. X. certainly owes his being called to N. to the fact that he was acting for Y., and it will be well to regard the attendance as given for Y.

SULPHITE OF MAGNESIUM AND DIPHTHERIA.

To the Editors of THE LANCET.

SIRS,—Referring to Dr. Brownlow L. Martin's letter in THE LANCET of the 4th inst. on the above subject, I should be glad if you would allow me to to endorse all he says about the efficiency of sulphite of magnesium in the treatment of diphtheria, having used it during the whole of my professional career and never having known it to fail either in my hands or in those of others who have used it on my suggestion. Dr. Martin is, however, in error in supposing that he discovered or first used it. I first learnt of its value when I was a student, about sixteen years ago, from Dr. Lewis of Dalbeattie, Kirkcudbrightshire. About ten years ago I read a detailed paper on the subject before the Bradford Medico-Chirurgical Society. On Feb. 19th, 1887, a short letter of mine on the subject was published in THE LANCET and was quoted in the "Year-book of Treatment" for 1888. Dr. Lewis, who has had a very extensive experience of diphtheria, had been using it with invariable success for some years before I was fortunate enough to be cured by him of an attack during a summer holiday. I would only add that, strongly as I wrote on the subject six years ago, further experience (including an outbreak in the Children's Hospital here last year) has only strengthened my absolute faith in the sulphite of magnesium as an unfailing specific, with which in my hand I have learnt to lose all dread of the disease. I should state that I recommend that it should be used by insufflation; where possible, as a gargle; and internally.

I remain, Sirs, yours truly,

W. GILCHRIST BURNIE,

Nov. 7th, 1893. Hon. Med. Officer, Bradford Children's Hospital.

Piers Hatton.—Our correspondent had better write to the Director-General, Army Medical Department, 18, Victoria-street, S.W., stating the circumstances and requesting information on the point in question. We are doubtful whether a soldier on furlough is entitled to medical attendance at the expense of the State.

Dr. R. McKelvie.—It would be illegal to receive the person referred to under the conditions named. Power, however, is given by the Act, 1890, section 46, under certain circumstances to take more than one person on the same conditions as a single patient.

COMMUNICATIONS not noticed in our present issue shall receive attention in our next.

During the week marked copies of the following newspapers have been received: — *Portsmouth Evening Mail, Newcastle Chronicle, Cork Daily Herald, Guardian, South Wales Daily News, Times of India, Truth, Western Mail, Chesham Examiner, Banbury Guardian, South Bucks Standard, South Durham Mercury, Morning Post, Health, Weekly Budget, News, Kirkcaldy Times, Galignani's Messenger, Dublin Evening Telegraph, Irish Times, Manchester Courier, Birmingham Gazette, Pioneer Mail, Bristol Mercury, Liverpool Daily Post, Leeds Mercury, Yorkshire Post, Scotsman, Architect, Sunday Times, Leicester Post, Chicago Tribune, Builder, Local Government Chronicle, Scottish Leader, Bradford Observer, Sanitary Record, West Middlesex Standard, Mining Journal, Weekly Free Press and Aberdeen Herald, Reading Mercury, Hertfordshire Mercury, Manx Sun, City Press, Local Government Journal, West Middlesex Advertiser, Hastings and St. Leonards Observer, Observer and Chronicle (Bournemouth), Australian Medical Journal, Guy's Hospital Gazette, Whitehaven News, Tasmanian Mail, Surrey Mirror, Derry Journal, Cannock Courier, Guernsey News, Schoolmaster, Tyrone Constitution, British Baker, Lynn Advertiser &c. &c*

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